INDUSTRIELLE SYLINDERFORMEDE TØRKE- OG STRYKEMASKINER

SYLINDERDIAMETER 350, 500 mm

STRYKEMASKINER MED INNSETTINGSBREDDE:

1400 mm

1600 mm

2000 mm

2500 mm

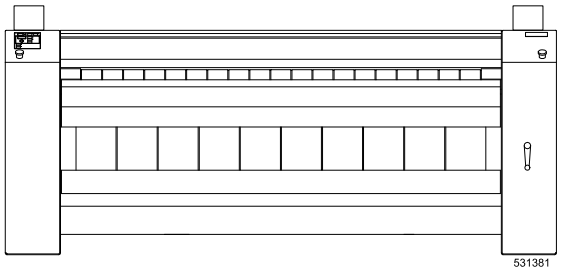
3200 mm

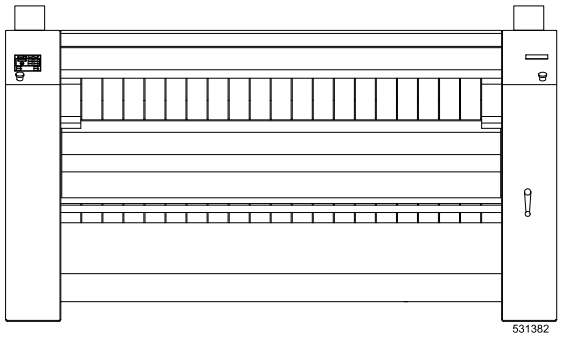
STRYKEMASKINER MED DOBBELTSIDIG UTTAK MED BRETTEMASKIN ELLER UTEN BRETTEMASKIN MED INNSETTINGSBREDDE:

2000 mm

2500 mm

3200 mm





INSTALLERINGS-, VEDLIKEHOLDS- OG BETJENINGSANVISNING

531472 I
Utgivelsesdato: 8.4.2010

OPERATIONS INSTRUKSJONER

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2. ADVARSLER OG SKILTE

VENNLIGST LES OG FØLG INSTRUKSENE NEDENFOR FOR Å REDUSERE FARE FOR BRANN, HELSESKADE GRUNNET ELEKTRISK STØT, ALVORLIG HELSESKADE ELLER SAKSSKADE:

– Denne versjon av håndboken er oversettelse fra engelsk. Uten den originale versjonen er de følgende instruksjoner ufullstendige.
– Før De begynner med installasjonen, drift og vedlikehold av maskinen les nøyaktig komplett veiledning, dvs. denne „Anvisningen for installasjon, vedlikehold og betjening av maskinen", „Programmeringsanvisning" og „Reservedelskatalog ". Programmeringsanvisning og reservedelskatalog er ikke en standard del av leveringen. Programmeringsanvisning og reservedelskatalog kan bestilles hos leverandøren / produsenten.
– Følg instruksjonene i anvisningene og oppbevar anvisningene på en egnet plass ved maskinen for senere bruk.
– Maskinen må ikke betjenes av barn, Innen maskinen startes, må man overbevise seg om der ikke er barn eller dyr nerheten (eller personer). Maskinen må ikke settesi drift med manglende dele, eller når den er beskadiget, eller med åpne dekninger. Uten grunn, må der ikke røres ved maskinstyreapparat. Den OPL-versjon av maskinen (dvs. uten en myntapparat) er beregnet på kvalifisert betjening.
– Ved strykningen sett fast ditt tøy, slips, armbånd og langt hår.
– Legg ikke brannfarlige ting i maskinen. I maskinens nerhet må ikke legges brannfarlige ting. Bevar maskinensoverflateren og uten brannbare materialet og fjern bort en gang om dagen den oppsamlede støv fra filtrene. Dampen fra maskinen suges bort fra stedet.
– Ved beskadigelse av sikkerhetslisten, som beskytter fingrene, hold opp med å stryke!
– Start aldrig maskinen med innsatt håndtak til hånddrift. Ved håndtering med det varme vasketøy bruk beskyttende hansker.
– Det ekvivalente støjnivå på betjeningsstedet er lavere enn 70 dB (A).

TIL VERSJON MED GASSOPPVARMNING

– Hvis man oppdagger at der ett eller annet sted i maskinen unnslipper gass, lufter man ut, av lukker for hovedtilførsel av gassen, tenner ingen elektriske forbrukere, ryker ikke, bruker ikke åpen ild og tilkaller mekanikeren.
– Ikke ødelegg eller forandre innstilling av undertrykksbryter(ene), sikkerhetstermostaten, insugningen av primarluft og alle apparater som har vært innstillt i fabrikken.

TIL VERSJON MED DAMPOPPVARMNING

– Hvis man oppdager ar der ett eller annet sted i maskinen unnslipper damp. Stanses hovedtilførslen og kalles på mekanikeren.

ADVARSEL

Før hvert inngrep i maskinen kople maskinen av fra elstrøms tilførsel.

Maskinen er uten spenning hvis det hovedstøpsel er trukket ut av nettstikkontakten eller hvis hovedstrømtilførslet er avbrutt.

Selv om hovedbryteren er skrudd av, går det strøm i klemmene til hovedbryteren!

2.1. SKILTE

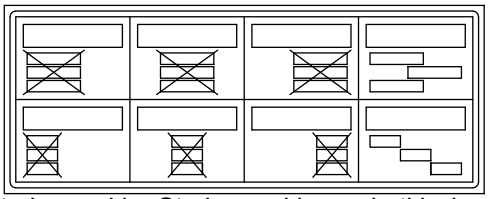
Trykknappen far

Pass på! Elektriskanlegg-farlig elektrisk spennig

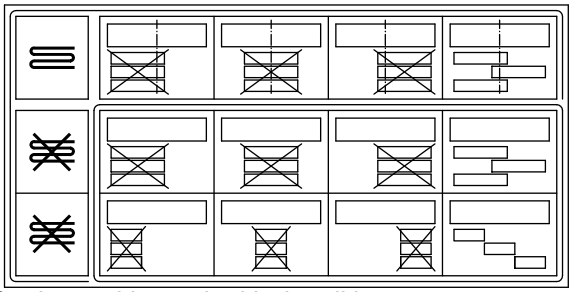
Den betegnede flte må ikke røres etter maskinoppvarmningen

Ved handtering med vasketøyet må man ikke gripe inn i betegnede område

Den riktige og den ikke rigtige utbredelse av vasketøyet, utbredelse på maskintilbringerbåndet



Strykemaskin, Strykemaskin med utkjøring til begge sider uten en sammenfolder



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Strykemaskin med utkjøring til begge sider med en sammenfolder

2.2. STRYKEANVISNING

Maskinen er kun beregnet til strykning av flat vasketøy (sengklær, duke, kjøkkentøy, håndkler, lommetørkler og øvrigslags flat vasketøy), av linnet, bomull, ull, silke, polyacryl, og polyestertråd. Maskinen med utgang på begge sider kan i tillegg brukes til å brette sammen tøy på langs dersom størrelsen på tøyet gjør det mulig å brette det sammen på langs minst en gang.

Maskinens produsent har ingen ansvar for tøyets beskadigelse ved utilpassende strykning.

Maskinen er ikke beregnet på stryking av tøy som inneholder metall, plast, glassfiber eller skumgummi.

Denne strykingsmaskinen egner seg for tøy med en optimal restfuktighet 40+/-10%. Strykingsmaskinen utfører den finale tørkingen. Tøy med en høyere restfuktiget må bli sentrifugert eller førtørket. Tøy som er altfor tørt skal vannes lett før strykingen ellers kan det overtørkete tøyet i maskinene som legger tøy sammen og kjører det ut til begge sider feste seg til strykebrettet og rullene.

Tøyet må ha vært skikkelig skyllet ut. Tøy som ikke har vært skyllet ut kann gylne eller kan forårsake et grums av rester av vaskepulver og urenheter. Tøyet må bli ordnet etter sorten og den ønskete temperaturen av strykingen. Tømm lommene på tøyet og fjærn alle fremmede gjenstander som spikrer, knappenåler, skruer o.s.v. som kunne ødelegge både tøyet og maskinen.

Rens støvfilteret daglig.

- Løft lokket (lokkene) av maskinens støvfilteret (filtrene) og ta fileteret ut. Sjekk støvfiltets bestand og fjærn det avsatte støv. Sett det rensete filteret tilbake på plass og legg lokket på.

Tøyet skal bli ordnet på rekkebåndet skiftevis til høyre og venstre eller gradvis fra venstre til høyre slik at rullen blir jevnt belastet ved varmoverførelsen.

Advarsel for versjonen som legger tøy sammen og kjører det ut til begge sider: Bare det tøyet som går gjennom midten av strykemaskinen blir lagt sammen.

Tøyet med knapper skal snues med knapper opp slik at de kann trykke seg inn i innhyllelsen.

Vær særlig forsiktig ved stryking av syntetiske stoff, slik at stoffet ikke klisses på rullen.

Aldri etterlat tøy i maskinen!

En minimal temperatursvingning kan bli påvirket av en vel opplært betjnening, som kan med hensyn til tøyarten og restfuktigeten forandre den inntstillte temperaturen og strykingshastigheten på maskinens kontrollpanel. Til å oppnå strykingmaskinens maksimal ytelse er hensiktsmessig å:

- forhindre et temperatursfall ved passende stryking
- sikre strykingens kontinuitet; jo kontinuerligere, jo bedre
- begrense tiden, når det ikke blir strykt på maskinen ved arbeidstemperaturen
- samle tøystykker av samme stoffsammensetning eller samme restfuktighet
- tilpasse hastigheten og temperaturen til de enkelte strykingers spesifiske behov

2.3. FEIL BRUK AV MASKINEN

⚠ ADVARSEL!
DENNE MASKINEN HAR BLITT KONSTRUERT FOR INDUSTRISTRYKING OG TØRKING, EVT. OGSÅ SAMMENFOLDING AV SLETT TØY, VASKET I VANN. ALT ANNET BRUK AV MASKINEN, AVVIKENDE FRA DENNE, UTEN PRODUCENTENS SKRIFTLIGE SAMTYKKE, SKAL BLI ANSETT FOR FEIL BRUK.

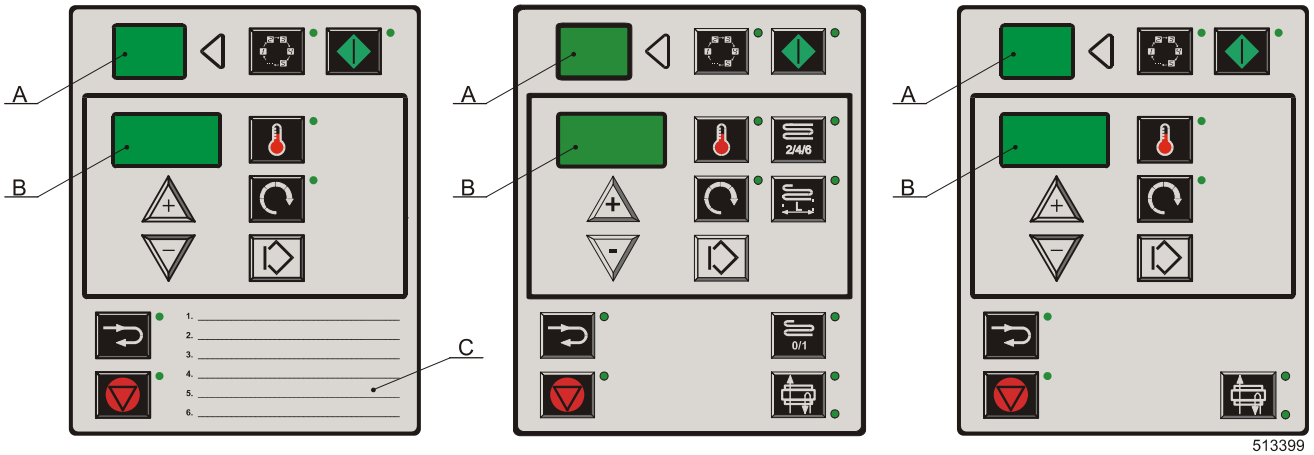
– Reversdrev skall ikke brukes til noe annet formål enn til å få en person eller en gjenstand som ble sittende fast i maskinen løs.
– Tøy, hvis sammensetning forhindrer bevaring av fuktighet, skal ikke strykes.
– Man skal altid stryke slikt, at den høyre og den venstre delen av strykingsflaten blir dekket skiftevis.
– Man skal aldrig slå av strømtilførsel, hvis maskinens temperatur er høyere enn 80°C, foruten unntakstilfeller.
– NÍr man stryker smÍ třystykker, skal mann ikke etterlate ledig plass pÍ rullens bredde til overmÍl.
– I lřpet av oppvarmings- og avkjřlingstid skal maskinen ikke stilles til maksimum hastighet.
– Man skal ikke stoppe maskinen, hvis strykingsbÍnd ikke er helt třrre. Man skal ikke stryke ved temperatur lavere en 80°C, fordi det kunne forårsake rullens oksidasjon.
– I strykingsmaskinen skal man ikke sette tøy som inneholder harde komponenter, som kunne skade rulleoverflaten eller båndene.
– Man skal ikke stryke syntetiske stoff ved høy temperatur.

2.4. ANVISNING TIL VEDLIKEHOLDT, JUSTERING OG TRYGGHET AV PERSONER

Følgende anvisninger er ikke i "Manual for maskinens betjening". Dere kan finne disse anvisninger i manualen "Manual til instalasjon og vedlikeholdt", som tilhør til maskinen. Referanser til " Anvisning til instalasjon og vedlikeholdt " etter norm EN ISO 10472-1 (-5):

1. Informasjoner om anvisning til betjening
2. Omfang av maskinens bruk og restriksjoner
3. Vedlikeholdt og justering
4. Lufting
5. Dekker
6. Feil, renering og vedlikeholdt
7. Varme riziker
8. Suging
9. Manipulasjon, instalasjon
10. Skift av emballasjen
11. Plasser til gripe

3. SYMBOLENE PÅ KONTROLPANELLET



Strykingsmaskinens kontrolpanell

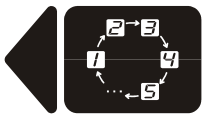
Kontrolpanell på strykemaskiner som legger tøy sammen og kjører det ut til begge sider

Kontrolpanell på strykemaskiner som ikke legger tøy sammen men kjører det ut til begge sider

Bildet 3.A. Kontrolpanell

A = det øvre display - hos OPL-versjonen vises programnummeret, hos versjonen med en myntapparat vises den gjenstående tiden
B = det nedre displayet – viser temperatur, hastighet og hos strykemaskiner som legger sammen tøy og kjører det ut til begge sider også antall folder eller foldebredde.
C = innleggplansjen - se Håndboken for programmering

START
- for start av maskinen



PROGRAMVALG
- til å velge strykeprogram,
hos strykemaskiner som legger tøy sammen og kjører det ut til begge sider også til å velge et program for sammenlegging av tøy

REVERSDREV
- (bare OPL) - til å stoppe maskinen
- til å starte reversdrev

AUTOMATISK STRYKINGSSTOPP
- OPL-versjonen: til å avkjøle maskinen og stoppe automatisk
- versjonen med en myntapparat: til å stoppe rekkebånd og til å slå av varmen

TEMPERATUR
- (bare OPL) - til å vise/innstille teperaturen

HASTIGHET
- (bare OPL) - til å vise/innstille hastigheten

PLUS, MINUS
- (bare OPL) - til å øke/senke verdien

PROGRAMMETS ARKIVERING
- til å arkivere de innstillte data i minnet

STRYKEMASKINER SOM LEGGER TØY SAMMEN OG KJØRER DET UT TIL BEGGE SIDER HAR I TILLEGG FØLGENDE KNAPPER:

SAMMENFOLDING TIL ET FAST TALL AV FOLDER
- til å velge sammenfolding til et fast tall av folder
- til å velge antall av folder.

SAMMENFOLDING JA/NEI - til å starte/stoppe sammenfolding

SAMMENFOLDING TIL EN FAST FOLDEBREDDE
- til å velge sammenfolding til en fast bredde
- til å velge bredden av foldene

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UTKJØRINGSRETNING – til å velge retning for, hvor tøyet blir kjørt ut. Gjelder også for strykemaskiner med utkjøring til begge sider uten sammenfoldingsfunksjon

Bildet 3.B. Symbolene på kontrolpanellet

4. DRIFTSINSTRUKSJONER

4.1. START

Før man starter maskinen for første gang, skal man sikre at maskinen er rett innstillt - se ”Håndboken for instalasjon og vedlikehold av maskinen”. Gå over støvfilteret og andre deler av maskinen etter ”Håndboken for instalasjon og vedlikehold av maskinen”.

4.2. Å SKRU PÅ STRØMMEN

Still hovedbryteren på baksiden av maskinens venstre stativ i posisjon ”**I**” - display lyser opp.

4.3. Å VELGE ET PROGRAM

OPL-versjonen: trykk på ”**SELECT**”-knappen til å velge et program. Deretter kan man øke og senke programstallet på det øvre display med knappene ”**SELECT**”, ”+” og ”-”. Det valgte programme blir lest av minnet først 2 sekunder etter at man trykker på en av knappene (det skal forhindre f.eks. plutselige hastighetsforandringer når man velger et program og maskinen er i drift).
Myntapparatversjonen: det er ikke mulig å velge program, bare ett program står til disposisjon. Man velger driftstemperaturen etter tøysorten ifølge denne tavlen:

TEMPERATUREN (°C)	STOFF
85	Polyacryl, Polyamid
110	Polyester, Cellulose
135	Silke
170	Ull
170	Bomull
175	Lin

4.4. Å STARTE STRYKINGEN

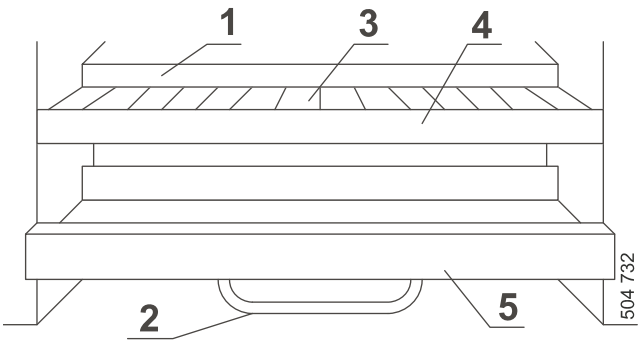
OPL-versjonen: Trykk på ”**START**”-knappen og maskinen startes, dvs. at rullen, ventilator(er), oppvarmingen og kløtsjen til innlegsbåndkraftoverføring settes i gang (hvis maskinen er utstyrt med en kløtsj).
Myntapparatversjonen: sett det nødvendige antall av mynt i myntapparaten (da viser displayet den betalte strykingstiden i minutter) og trykk på ”**START**”-knappen. Rullen, ventilatorer(-ene) og oppvarmingen settes i gang, men ikke kløtsjen til innlegsbåndkraftoverføring.

4.5. OPPVARMINGSPROSESSEN

Når maskinen er slått på, må man vente på at strykesylinderen oppnår den ønskede temperaturen. Før oppvarmingen starter, blir undertrykkskoplere kontrollert.
OPL-versjonen: det er mulig å følge opvarmingsprosessen på det nedre display etter at det ble trykkt på temperaturknappen.
Versjon med myntenhet: når oppvarmingsprosessen er avsluttet, får man høre avbrutt signallyd. I dette øyeblikket blir den betalte stryketiden telt ned til null.
NB! Hvis kunden forsøker å begynne å stryke før opvarmingsprosessen er avsluttet (på den måten at han ville slippe tøyet inn under sikkerhetslisten), begynner den betalte strykingstiden straks å gå og signalapparatet gir fra seg en lyd.

4.6. STRYKINGEN

OPL-versjonen: Strykingen kan begynne når den aktuelle temperaturen stiger opp nær nivået som er ønsket for den konkrete tøyarten. Sjekk om tøystoffet tåler stryking og ved hvilken temperatur. Det går an å regulere temperaturen og hastigheten i løpet av strykingen etter behov - se ”Håndboken for programmering”.
Versjon med myntenhet: stryking kan begynne når signallyden er å høre – starte beltet ved å trå på pedalen.



Under stryking kan man når som helst forlenge den betalte stryketiden ved å kaste inn flere mynter. Ett minutt før den betalte tiden utgår, slås signallyden på (i 10 sek) for å informere betjeningen om at den betalte tiden snart blir avsluttet.
Det er mulig å stige på pedalen, pos.2, og stoppe dermed rekkebåndene, bilde 4.6.A, pos. 3 og sette dem i gang igjen slik at tøyet blir sett i maskinen på den rette måten. Hvis man setter tøyet inn på en feil måte, skal man bruke reversdrev for å løsrive det.
DET ER MULIG Å FORETA DENNE OPERASJONEN BARE I EN TID SOM ER NØDVENDIG TIL Å LØSRIVE TØYET.

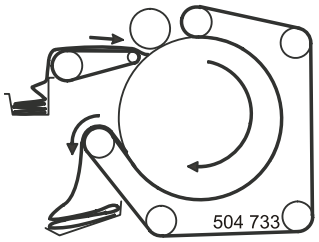
Bilde 4.6.A

OPL-versjonen: Ved å trykke på reversdrevknappen er det mulig å stoppe maskinen. Ved å trykke på den en gang til setter man rullen i gang til en begrenset tid i motsat retning. Hvis det blir trykkt på knappen gjentatte ganger, kann reversdrevet bli forlengt.

Myntapparatversjonen: Reversdrevet blir startet, hvis man trykker på sikkerhetslisten, bilde 4.6.A, pos.1.

Tørr og stryket tøy går tilbake i trauet, bilde 4.6.A, pos. 5 og kann bli foldet med det samme.

OPL-VERSJONEN: TRYKK PÅ KNAPPEN SOM ENDER STRYKINGEN AUTOMATISK I TILSTREKKELIG TID FØR TØYET SLUTTER Å SETTES INN SLIKT AT RULLEN OVERVARMES IKKE.



Bilde 4.6.B

⚠ **ADVARSEL (BARE OPL-VERSJONEN)!**
HVIS MENNESKER STÅR I FARE, TRYKK PÅ SENTRALSTOPP ELLER SIKKERHETSLISTEN OG STOPP MASKINEN.

4.7. SAMMENFOLDING

Gjelder for strykemaskiner med utkjøring til begge sider med sammenfoldingsfunksjon.
Sammenfolding blir gjort etter programmets parametrer og etter det foregående tøyets målde lengde. Det første tøystykket som kommer etter at maskinen ble satt i gang eller etter et programskifte kann derfor bli foldet sammen på en feil måte eller slett ikke.
Til å oppnå sammenfolderens rette drift er det nødvendig å ha 15-20 cm (avhengig av strykingshastigheten) mellomrom mellom de enkelte tøystykkene når tøyet blir satt inn i maskinen, eller når flere stykker blir foldet opp på hverandre. Ved stryking av tøy som er smalere en rullebredden er det nødvendig å legge tøyet skiftevis til den venstre og den høyre kanten, slikt at strykingsrullekanter ikke blir overvarmet. Hvis tøyet er smalere en halvparten av rullens bredde, kann det ikke bli foldet sammen!

4.8. PROGRAMSKIFTE I LØPET AV STRYKINGEN

Det blir gjort på samme måte som før strykingen er sett i gang - se kapittel 4.3 (kun OPL-versjon).

4.9. Å AVSLUTTE STRYKINGEN

OPL-versjonen: Det er nødvendig å trykke på knappen for automatisk avslutning av strykingen. Da blir oppvarmingen slått av og LED-indikatoren ved siden av knappen begynner å blinke. Så snart som temperaturen senker under 80°C, stopper maskinen fullstendig. Bare styringssystemet forblir under strřmmen. Maskinen blir slĺtt fullstendig av etter at det hovedbryteren blir slĺtt av. Det er mulig Í fremskynde rullens avkjřling ved Í stryke noen stykker třy med fuktighet hřyere enn 50%.

⚠ **ADVARSEL!**
HVIS STRYKINGRULLENS TEMPERATUR BLIR HŘYERE 80°C, SLÅ MASKINEN ALDRI AV MED HOVEDBRYTEREN, SENTRALSTOPPBRYTEREN ELLER SIKKERHETSLISTEN! STRYKINGSBÅNDENE KUNNE SKADES!

Myntapparatversjonen: etter at den betalte tiden er slutt, slår oppvarmingen av og maskinen går over i avkjølingsregime. Så snart som temperaturen senker under 80°C, stopper maskinen automatisk. I løpet av avkjølingen er når som helst mulig å starte igjen vanlig stryking ved å sette inn flere mynter og trykke på Start-knappen (se 4.4. Start av strykingen).

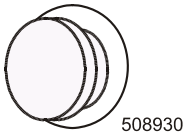
4.10. HVORDAN SKAL MAN REAGERE PÅ BESKJED OM EN DRIFTSFORSTYRRELSE

Beskjed om en driftsforstyrrelse kommer på det nedre display i form av et nummer (001 til 999). Samtidig kommer „Er“ opp på det øvre display, i noen tilfeller høres også et lydsignal. Hvis det er mulig, er maskinen fremdeles i gang tross for drifstforstyrrelsen, men oppvarmingen blir slått av.

⚠ **ADVARSEL!**
HVIS MASKINEN STOPPER VED EN TEMPERATUR SOM ER HØYERE ENN 80°C, ER DET NØDVENDIG Å SØRGE FOR AVKJØLINGEN AV STRYKINGSRULLEN VED HJELP AV VÅTT TØY OG VED BRUK AV EN HÅNDSVEIV.

Det er mulig å viske ut en beskjed om en drifsforstyrelse og forstumme lydsignalet ved å trykke på knappen som slår strykingen automatisk av, hos myntapparatversjonen også ved å trykke på „**START**“ knappen.
Hvis driftsforstyrrelsen fortsetter, kommer beskjeden opp igjen etter 30 sekunder.
Nærmere opplysninger - se „Håndbok for programmering“.

4.11. NØDSTOPP AV MASKINEN



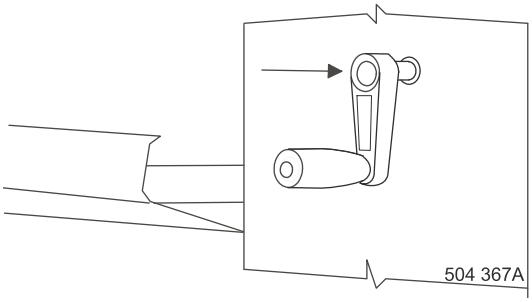
Kun OPL-versjonen
Hvis betjeningens helse eller sikkerhet er i fare, er det mulig å stoppe maskinen ved å trykke på sentralstopp-knappen, bilde 4.11., på strykingsmaskinens stativer eller ved å trykke på sikkerhetslisten, bilde 4.6.A, pos. 1.

Bilde 4.11.

⚠ ADVARSEL!
STRAKS ETTER AT ÅRSAKENE TIL MASKINSTOPP HAR BLITT FJÆRNT, TA TØYET UT AV MASKINEN OG KJØL RULLEN UNDER 80°C (VED HJELP AV EN HÅNDSVEIV ELLER VED MASKINENS DRIFT). BRANNFARE!

4.12. Å LØSNE PÅ TØYET SOM BLE SITTENDE FAST I MASKINEN

Hvis et tøy er blitt sittende fast i maskinen , slå hovedbryteren av og bruk sveiven som er på det høyre stativet til å få tøyet ut. Løft sveiven av stativet og trykk den inn i åpningen.
Når man snur sveiven, skal man trykke den lett til stativet.
Etter at tøyet ble tatt ut, løsne sveiven og legg den tilbake på plass.



⚠ ADVARSEL!
HVIS SVEIVEN ER TRYKKT INN OG RULLEN SNUR SEG I REVERSDREV, KAN SVEIVEN FORÅRSAKE SÅR.

4.13. STRØMBRUDD

⚠ ADVARSEL!
NÅR RULLENS TEMPERATUR STIGER OVER 80°C, MÅ MAN AVKJØLE MASKINEN VED Å SNU RULLEN (MED HÅNDSVEIVEN ELLER MED MASKINENS DRIFT). BRANNFARE!

Bruk av hÍndsveiven etter kapittel 4.12.

Etter fornyelsen av strřmtilfřrsel er det mulig Í sette maskinen řyeblikkelig i gang.

Myntapparatversjonen: Hvis rullens temperatur etter fornyelsen av strřmtilfřrsel er hřyere enn 80°C, er det nødvendig å trykke på ”Start”-knappen. Da settes strykingsrullen i gang og det forhindrer at strykingsbrettene blir skadet (da er det ikke nødvendig å sette inn noen mynter). Etter at temperaturen senker under 80°C, stopper maskinen automatisk.

5. TABLE OF ERROR CODES, MESSAGES AND TROUBLESHOOTING

5.1. TROUBLESHOOTING

Control system ensures complete control of the ironer. When a failure occurs, the machine will go automatically to safety state.
Following table is a guide for solving of common problems.

5.2. ERROR MESSAGES

It a failure occurs, the control system displays an error message and the siren will whistle discontinuously in some cases.

5.3. HOW TO SOLVE ERROR MESSAGES

Find appropriate error message in manual.
Error message can be delete by pressing the button for automatic finishing of ironing.

5.4. TABLE OF ERROR MESSAGES

No.	Error message	Machine operation
001*	Temperature of ironing roller is higher than 200°C	Machine operates normally, heating is OFF
002*	Temperature of ironing roller is higher than 80°C and roller does not rotate	Machine is stopped, it is possible to start it by the button „Start“
003	Overloading of motor(s) of ventilator(s)	Machine changes to mode of automatic finishing of ironing
004	Short circuit of temperature sensor	Machine goes on operating, heating is OFF. Stopping the machine is possible only by the main switch.
005*	Disconnection of temperature sensor	Machine goes on operating, heating is OFF. Stopping the machine is possible only by the main switch.
006	Failure of drive	Machine is stopped
007	Underpressure switches are off (gas heating only)	Machine is operating, heating is OFF
008	Failure of burner ignition (gas heating only)	Machine is operating, heating is OFF
009	Crank for manual rotation of ironing cylinder is pushed	Machine is stopped
010	Lifting up the trough (only machines with ironer with front/rear delivery)	The machine operates normally, direction of balancing is switched forward, speed is reduced to minimum
011	Failure of underpressure switches	Machine is operating, heating is OFF
012	Wrong function of safety bar	Machine control is blocked, machine can be switched off only
013	Defective speed sensor (IF machines only)	Machine is running without folding
255	See error No. 005	-

** = Message is accompanied with discontinuous sound of siren*

5.5. EXPLANATION OF ERROR MESSAGES

IMPORTANT!
TECHNICAL REPAIRS OF IRONER CAN BE EXECUTED ONLY BY TECHNICIANS WITH APPROPRIATE KNOWLEDGE OF THE MACHINE.

ERROR 1: TEMPERATURE OF IRONING ROLLER IS HIGHER THAN 200°C

Error is detected by temperature sensor. For higher safety the machine is equipped with separate safety thermostat, which disconnects heating when temperature exceeds 210°C.

CAUSE:

1. Interruption of ironing when temperature of ironing roller is high (180°C)	Wait until the machine cools down, or cool it down by ironing of wet linen (use some old linen as it can be damaged by the high temperature)
2. Failure of electrical installation	Professional servicing is necessary
3. Interruption of temperature sensor	Change temperature sensor, check the connection

(displayed temperature is 255°C)	of the sensor

ERROR 2: TEMPERATURE OF IRONING ROLLER IS HIGHER THAN 80°C AND THE ROLLER IS NOT ROTATING

Rotation of ironing roller is evaluated on the basis of signal from frequency inverter. If the roller stops due to any cause (it means either on purpose, e.g. by the button for reverse operation, by pushing the crank or safety bar, or due to failure), then after 5s the siren starts whistling to warn about danger – burning of ironing belts.

CAUSE:

1. Pressing the button for reverse operation	Press the button again for starting the reverse operation or press „Start“ again to start the normal operation.
2. The crank for manual rotating of the roller was pushed	Start the normal operation by the button „Start“. When it is not possible, check, whether the crank is not jammed in the insertion position, or the micro switch got jammed on the crank (inside the stand).
3. The safety bar was pushed	Start the normal operation by the button „Start“.
4. Failure of drive	Switch the machine OFF and ON again. If it’s not possible to start it even now, cool it down by wet linen and rotating the handle. After cooling the machine down below 80°C, repair the drive.

ERROR 3: OVERLOADING OF VENTILATOR(S) MOTOR(S)

The machine is equipped with one, and at length 250 and 320 cm with two ventilators for exhaust of evaporated humidity, or combustion gases from the gas burner. In motor winding of every ventilator there is placed bimetal that detects overheating of the winding.

CAUSE:

1. Mechanical failure of ventilator	Check ventilator(s).
2. Clogged exhaust pipeline	Check and clean exhaust pipeline.

ERRORS 4 AND 5: SHORT CIRCUIT / INTERRUPTION OF TEMPERATURE SENSOR

Temperature sensor of ironing roller is pushed on the roller approximately in 1/3 of its length and it is equipped with cable with silicone insulation, which withstands high temperatures of ironing roller without problems. When the failure occurs, the sensor must be changed (repair is not possible).

ERROR 6: FAILURE OF DRIVE

Failure of the drive is evaluated on the basis of signal from frequency inverter.

CAUSE:

1. Failure message of frequency inverter	Try to switch the machine OFF and ON again, or let the inverter cool down. If it doesn’t help, look for error according to individual instruction for inverter.

ERROR 7: UNDER PRESSURE SWITCHES ARE OFF (GAS HEATING ONLY)

1 or 2 (according to width of machine) under pressure sensors detect correct function of combustion gases exhaust. If the combustion gases exhaust is weak and there is a danger of spreading combustion gases to the space around ironer, then under pressure switches will open and by this the gas valve gets closed and the burner will turn off.

CAUSE:

1. Clogged exhaust pipeline, dust in ventilator vanes, etc.	Check and clean the whole route of combustion gases exhaust.
2. Ventilator is not rotating at all.	Check motor of ventilator and electrical installation, see also error 003.

ERROR 8: FAILURE OF BURNER IGNITION (GAS HEATING ONLY 50 HZ)

Ironer is equipped with automatic electronic system for the burner ignition and the flame guarding.
If the flame ignition is not successful, the system will bring out the error message. After confirmation this message by the button for automatic finishing of ironing, a new trial to ignite the burner will be executed.

CAUSE:

1. Gas supply is closed	Open the valve installed on the gas pipeline to ironer.
2. Defect gas valve (in the ironer stand)	Check the valve. Switching of the valve is accompanied by audible click.
3. Wrong function of mixer	Remove sieve of mixer and check, whether the jet is not clogged and whether the sleeve above jet is in correct height (see Maintenance manual).
4. Wrong position of ignition electrode	Check, whether the electrode is covered with flame when the burner is burning.
5. Defective ignition electrode	Check, whether the electrode glows.

ERROR 9: CRANK FOR MANUAL ROTATION OF IRONING CYLINDER IS PUSHED

To avoid injury when pressing the crank during reverse operation, the crank is equipped with a safety switch, which will stop the ironer when the crank is pushed. Then this error message is displayed.

CAUSE:

1.The crank is pushed	Release the crank and start the machine with „Start“ button or start reverse operation
2.Micro switch on the crank stayed activated	Check the correct function of the micro switch

ERROR 10: THE TROUGH IS LIFTED UP (ONLY MACHINES WITH FRONT/REAR DELIVERY)

Position of the trough is monitored to avoid an access into the machine inner space during operation.
If the trough opens during the machine operation, the error message is displayed and the machine changes to safety condition (direction of balancing is switched forward, speed is reduced to minimum). After the trough is closed, the error message is deleted, original speed as well as direction of balancing are reset.

CAUSE:

1.Trough is lifted up	Close the trough
2.Micro switch of trough position is damaged	Check the correct function of the micro switch

ERROR 11: FAILURE OF UNDERPRESSURE SWITCHES

The correct function of underpressure switches is checked during the machine operation. Before starting the machine by the button „START“, the switches must be switched OFF. They must be switched ON within 10s after START. See failure 007.

CAUSE:

1. Failure in wiring	Check the correct wiring of switches
2. Defected underpressure switch	Check the switch correct function

ERROR 12: WRONG FUNCTION OF SAFETY BAR

When the machine is switched on, the correct function of safety bar is checked. In case of wrong function the error 012 is reported. The machine control is blocked and it is possible just to switch the machine off and eliminate the failure.

CAUSE:

1. Jammed bar or switch	Release the bar or switch
2. Damaged switch	Check correct function of the switch
3. Failure in connection	Check the correct switch connection
4. Incorrect version of software or programmer	The software version 1.40 or inferior must be used on machines made till June 2005, while the

	software version 1.42 or superior and programmer with revision E and superior must be used on machines which were made later.

ERROR 13: DEFECTIVE SPEED SENSOR

During the machine operation the correct function of speed sensor is checked. In case of incorrect function the error 013 is reported.

CAUSE:

1. Damaged sensor	Check the correct function of sensor
2. Wrong adjustment of sensor	Adjust distance between the sensor and rotating screen with teeth, so that the light indicator on sensor is blinking when the screen rotates. If the indicator is constantly ON, increase the distance, if it is constantly OFF, reduce the distance. If adjustment of diameter does not help, it is necessary to change the sensor.

Andre problemer og deres løsning - se "Manual for installasjon og vedlikehold"

INSTALLATION AND MAINTENANCE MANUAL

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2. WARNING AND LABELS

TO MINIMIZE THE RISK OF FIRE, INJURY BY ELECTRIC SHOCK OR SERIOUS INJURIES TO PEOPLE OR PROPERTY DAMAGE, PLEASE READ AND FOLLOW THE FOLLOWING INSTRUCTIONS:

- This version is the original version. Without this version, the instructions are incomplete.
- Before installation, operation and maintenance of the machine read carefully the complete instructions, i.e. this „Installation, maintenance and user's manual", „Programming manual" and „Spare parts manual".
  The Programming manual and Spare parts manual are not delivered with a machine by default. You shall ask the supplier / manufacturer to obtain Programming manual and Spare parts manual.
- Follow the instruction written in manuals and keep the manuals in a proper place by the machine for later use.
- If any problems or failures occur which you do not understand, immediately contact your dealer, serviceman or manufacturer.
- Do not bypass the instructions stated in the instruction manual, and warnings on the labels.
- Follow all basic and valid safety instructions and laws.
- The ironing machine is intended to be permanently connected to fixed wiring.
- The machine must be connected to the power, ground, ventilation and steam, gas supply according to the installation manual, in compliance with the local standards done by qualified technicians with proper authorization. The valid standards for connecting to the local power network (TT / TN / IT, ...) must be followed.
- The machine is equipped with frequency inverter. Do not change the parameters of the inverter. Doing so can cause serious injury, fire, machine damage, etc.
- Any changes concerning the installation which are not described in this Installation Manual, must be approved by the supplier or manufacturer. Otherwise, the supplier and manufacturer are not responsible for potential injuries to operators or for any damages.
- Do not operate the appliance when parts are broken or missing or when covers are open. The appliance must not be operated until the fixed guards are put correctly in place.
- Interventions into the machine functions are not allowed, and the manufacturer refuses any responsibility in such cases.
- Do not tamper with the machine's control.
- Do not store or spray flammable materials around the machine.
- Keep the top of the machine clean, with out the presence of flammable materials, and once a day remove the dust from the ventilation filter.
- Regularly check the proper function of ground, ventilation of the machine, safety bar and emergency stop.
- Do not repair or adjust chain and belt pulleys when the machine is in operation, turn off the main switch.
- The instructions and warnings described in this installation manual do not include all conditions and situations which may occur during the installation of your ironer. They must be generally understood. Caution and care are factors which are not included in the design of this ironer and all persons who install, operate or maintain the machine must be qualified and familiar with the operating instructions.

FOR GAS HEATED VERSION

- Turn off the main Gas supply when discovering a gas leak from the machine. Ventilate the premises, do not turn on any electrical devices, do not smoke, do not use open flame and call the maintenance.
- Do not eliminate nor change settings of the underpressure switch, safety thermostats, primary air suction and all factory preset devices.
- Do not replace the parts stated in the chapter „List of the previous non-interchangeable parts".
- Ensure minimal air vent of room recommended by manufacturer.

FOR STEAM HEATED VERSION

- Turn off the main Steam supply when discovering that steam is leaking from the machine, and call the maintenance.

FOR ALL VERSIONS

INSTALLATION AND REPAIR CAN ONLY BE DONE BY A TECHNICIAN WITH MANUFACTURER'S CONSENT. IF THE INSTRUCTIONS IN THIS MANUAL ARE NOT MET, THE WARRANTEE MAY BE CANCELED.

WARNING!

Always disconnect the machine from the electrical supply before attempting any service. The machine is out of tension if the main plug is taken out or when the main supply is disconnected.
When the main switch is turned off the inlet terminals of the machine main switch are still under current!

⚠ WARNING!
ORIGINAL OR IDENTICAL PARTS MUST BE USED FOR REPLACEMENT IN THIS MACHINE.
AFTER SERVICING REPLACE AND SECURE ALL PANELS IN THE ORIGINAL WAY.
TAKE THESE MEASURES FOR CONTINUED PROTECTION AGAINST ELECTRICAL SHOCK, INJURY, FIRE AND/OR PROPERTY DAMAGE.

DURING TRANSPORT AND STORAGE

⚠ WARNING !
NEVER PUSH, PULL OR APPLY PRESSURE ON COMPONENTS WHICH PROTRUDE FROM THE MACHINE CONTOURS (CONTROLLERS, DOOR LOCKS, CENTRAL STOP BUTTONS, MANUAL HANDLE, MAIN SWITCH, ETC.).
MAKE SURE THAT THESE COMPONENTS ARE PROPERLY SECURED TO AVOID A DAMAGE DURING THE INSTALLATION AND HANDLING THE IRONER.

In the event that the customer provides the transport, it is necessary to follow the manufacturer's instructions for transport, handling and storage. In this case the manufacturer is not responsible for occasional damages during transport.
The ambient temperature for transport and storage should not decrease below –25°C and it should not exceed +55°C. During transport the relative humidity of the environment should not exceed 50%.
When the machine is stored outdoors, it must be protected against mechanical damages, adverse climatic effects and sunshine.
If it is convenient, leave the machine in its transport package or at least on its wooden transport skids until it is decided to install the ironer on the base in the laundry. A manner of handling the ironer is described in chapter „4.1. Manipulation and unpacking“.

2.1. MACHINE SYMBOLS

See User's manual.

3. TECHNICAL INFORMATION

3.1. IRONER USE

Machines are designed for ironing flat linen in laundries (bedroom linen, table cloths, towels, dish towels, handkerchiefs and other flat linen). Machine with front/rear delivery with folder serves additionally for length folding of linen.

⚠ **WARNING !**
THE MACHINE IS NOT DESIGNED FOR THE IRONING OF LINEN WHICH CONTAINS PARTS MADE OUT OF METAL, PLASTIC, GLASS FIBERS OR RUBBER FOAM.
THE MACHINE IS DESIGNED TO IRON LINEN MADE OUT OF FLAX, COTTON, WOOL, SILK, POLYACRILYC AND POLYESTER FIBERS.
ONLY LINEN WITH A RESIDUAL MOISTURE OF 40% ± 10% CAN BE INSERTED INTO THE IRONER. THE IRONER WILL PERFORM THE FINAL DRYING. IT IS NECESSARY TO SPIN OR PRE DRY LINEN WITH A HIGHER RESIDUAL MOISTURE.

3.2. MACHINE DESIGN

THIS MANUAL IS COMMON FOR STANDARD IRONERS OF SERIES WITH ROLLER DIAMETER 350, 500MM (FURTHER AS IRONER) AND IRONERS WITH FRONT/REAR DELIVERY WITH FOLDER OR WITHOUT FOLDER (FURTHER AS IRONER WITH FRONT/REAR DELIVERY) WITH ROLLER DIAMETER 500MM. DIFFERENCES ARE MENTIONED PROPERLY IN THE TEXT.

Insertion width of the machine is 1400, 1600, 2000, 2500 and 3200 mm according to the particular type. Machines are operated manually by push buttons on keyboard (hereafter just OPL) for qualified operators in a laundry or with a coin meter for self serve laundries. Machines are heated by electricity (E), steam (S) or gas (G). The temperature of the roller can be set by means of the keyboard. The ironing speed can be set according to the degree of moisture of the linen. List of categories for which appliance is approved:

VALID FOR VERSION WITH GAS HEATING

⚠ **WARNING !**
SOME PARTS OF „G“ VERSION ARE DESIGNED FOR SPECIFIC GAS AND ONE CAN NOT REPLACE THEM. SUCH PARTS ARE LISTED IN CHAPTER „THE LIST OF ORIGINAL NON-INTERCHANGEABLE PARTS“.

⚠ **WARNING !**
TOLERANCE OF GAS PRESSURE ± 5%. TOLERANCE VIOLATION (EXCESS) AFFECTS THE CORRECT FUNCTION OF HEATING.

Category of machines, country of destination, types of gases and pressures of gases for which the machines are approved, are stated in chapter 4.7., (tab.4.7.A., tab.4.7.B) and are specified in attachment 525185 (the attachment is delivered only with machines with gas heating (G)).

3.3. NAME PLATE

The name plate is located on rear right stand of the machine (pos.13 fig.3.4.A and 3.5.A pos.10 on fig.3.6A).

3.4. IRONING MACHINE WITH ROLLER 35 CM

PARAMETERS OF THE MACHINE WITH ELECTRICAL HEATING

MODEL E				
Insertion width	**mm**	**1400**	**1600**	**2000**
Packing dimensions : width depth height transportation capacity	 mm mm mm m^3	 2290 970 1550 3,44	 2490 970 1550 3,74	 2890 970 1550 4,34
A - machine width	mm	2150	2350	2750
B - maximum feeding width	mm	1400	1600	2000
Roller diameter	mm	352	352	352
Roller length	mm	1500	1700	2100
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37		
Ventilator motor output	kW	0,18 / 0,255		
Ventilation output	m^3/h	990		
Number of Exhaust pipe	pcs	1	1	1
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	50	60	65
Max. power consumption	kW	17	25	29
Weight : net weight gross weight	 kg kg	 560 710	 610 780	 680 880
Sound pressure level	dB (A)	67,6		

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.4.A Machine with roller 35 cm, model E

PARAMETERS OF THE MACHINE WITH STEAM HEATING

MODEL S				
Insertion width	**mm**	**1400**	**1600**	**2000**
Packing dimensions :	mm	see model E	see model E	see model E
A - machine width	mm	2150	2350	2750
B - maximum feeding width	mm	1400	1600	2000
Roller diameter	mm	352	352	352
Roller length	mm	1500	1700	2100
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37		
Ventilator motor output	kW	0,18 / 0,255		
Ventilation output	m³/h	990		
Number of Exhaust pipe	pcs	1	1	1
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	60	75	80
Max. power consumption	kW	0,5	0,5	0,5
Weight : net weight gross weight	 kg kg	 570 720	 620 790	 690 890
Steam pressure	MPa	0,8-1,0		
Steam consumption - press. 0,9 Mpa	kg/h	27	32	40
Steam supply		G3/4“		
Condense drain		G3/4“		
Sound pressure level	dB (A)	67,6		
Max. permitted pressure	Mpa	1,0		
Max. permitted temperature	°C	185		
Volume of pressure tank = cylinder	l (dm³)	123,1	141,3	177,5
Liquid / group	-	steam / 1		
Testing pressure	MPa	1,43		

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.4.B Machine with roller 35 cm, model S

PARAMETERS OF THE MACHINE WITH GAS HEATING

MODEL G				
Insertion width	**mm**	**1400**	**1600**	**2000**
Packing dimensions :	mm	see model E	see model E	see model E
A - machine width	mm	2150	2350	2750
B - maximum feeding width	mm	1400	1600	2000
Roller diameter	mm	352	352	352
Roller length	mm	1500	1700	2100
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37		
Ventilator motor output	kW	0,18 / 0,255		
Ventilation output	m³/h	990		
Number of Exhaust pipe	pcs	1	1	1
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	50	60	65
Max. power consumption	kW	0,7	0,7	0,7
Weight : net weight gross weight	 kg kg	 580 730	 670 840	 700 900
Sound pressure level	dB (A)	67,6		
Gas supply		3/4“		
Gas heating output	kW	26,2	30	30

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.4.C Machine with roller 35 cm, model G

LEGEND FIG.3.4.A

1. Coinmeter (only for version with coinmeter)
2. Control panel
3. Upper cover
4. Emergency stop
5. Manual drive of roller
6. Ironing belts
7. Exhaust ventilation (dimensions-see chapter „4.5. Exhaust system“)
8. Pedal used for starting/stopping belts' movement (according to order, only for version OPL)
9. Pedal microswitch (according to order, only for version OPL)
10. Coin container (only for coin version)
11. Insertion belts / feeding table
12. Cover of filter sieve
13. Name plate
14. Condense drain G3/4“ (only for version „S“)
15. Main switch
16. Upper trough
17. Steam supply G3/4“ (only for version „S“)
18. External protective connector
19. Lower trough
20. Bolts of side cover
21. Main power supply
22. Gas supply G3/4“ (only for version „G“)
23. Electric power supply for heating system (only for version „E“)

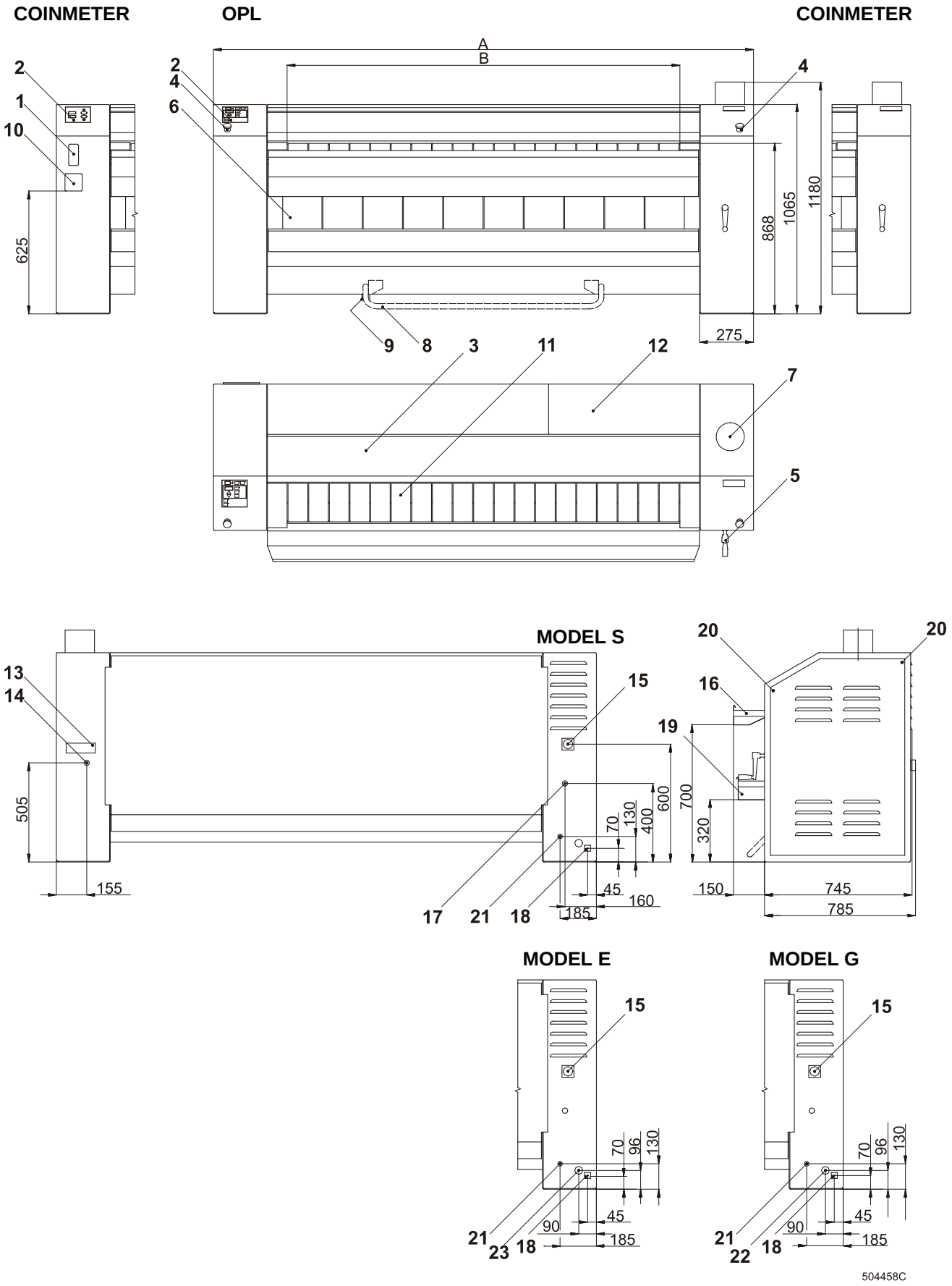


Fig. 3.4.A Placement of components on the machine with 35 cm roller

3.5. IRONING MACHINE WITH ROLLER 50 CM

PARAMETERS OF THE MACHINE WITH ELECTRICAL HEATING

MODEL E					
Insertion width	**mm**	**1600**	**2000**	**2500**	**3200**
Packing dimensions : width depth height transportation capacity	 mm mm mm m³	 2490 1100 1550 4,24	 2890 1110 1550 4,97	 3490 1110 1550 6	 4090 1110 1550 7,03
A - machine width	mm	2350	2750	3350	3950
B - maximum feeding width	mm	1600	2000	2500	3200
Roller diameter	mm	500	500	500	500
Roller length	mm	1700	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz			
Motor output	kW	0,37		0,37	
Ventilator motor output	kW	0,18 / 0,255		2x 0,18 / 0,255	
Number of Exhaust pipe	pcs	1	1	2	2
Ventilation output	m³/h	990		2x990	
Ironing speed	m/min	1,5 - 8			
Max. ironer capacity (1)	kg/h	65	80	95	120
Max. power consumption	kW	33	38	55	65
Weight : net weight gross weight	 kg kg	 890 1090	 1020 1230	 1260 1480	 1470 1740
Sound pressure level	dB (A)	67,6		67,6	

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.5.A Machine with roller 50 cm, model E

PARAMETERS OF THE MACHINE WITH STEAM HEATING

MODEL S					
Insertion width	**mm**	**1600**	**2000**	**2500**	**3200**
Packing dimensions :	mm	see model E	see model E	see model E	see model E
A - machine width	mm	2350	2750	3350	3950
B - maximum feeding width	mm	1600	2000	2500	3200
Roller diameter	mm	500	500	500	500
Roller length	mm	1700	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz			
Motor output	kW	0,37			
Ventilator motor output	kW	0,18 / 0,255		2 x 0,18 / 0,255	
Ventilation output	m³/h	990		2 x 990	
Number of Exhaust pipe	pcs	1	1	2	2
Ironing speed	m/min	1,5 - 8			
Max. ironer capacity (1)	kg/h	80	95	115	145
Max. power consumption	kW	0,7	0,7	0,9	0,9
Weight : net weight gross weight	 kg kg	 900 1100	 1070 1280	 1280 1490	 1540 1800
Steam pressure	MPa	0,8 – 1			
Steam consumption - press. 0,9 MPa	kg/h	36	49	68	88
Steam supply		G3/4“			
Condense drain		G3/4“			
Sound pressure level	dB (A)	67,6			
Max. permitted pressure	MPa	1,0			
Max. permitted temperature	°C	185			
Volume of pressure tank = cylinder	l (dm³)	277,6	348,7	455,5	562,3
Liquid / group	-	steam / 1			
Testing pressure	MPa	1,43			

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.5.B Machine with roller 50 cm, model S

PARAMETERS OF THE MACHINE WITH GAS HEATING

MODEL G					
Insertion width	**mm**	**1600**	**2000**	**2500**	**3200**
Packing dimensions :	mm	see model E	see model E	see model E	see model E
A - machine width	mm	2350	2750	3350	3950
B - maximum feeding width	mm	1600	2000	2500	3200
Roller diameter	mm	500	500	500	500
Roller length	mm	1700	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz			
Motor output	kW	0,37			
Ventilator motor output	kW	0,18 / 0,255		2 x 0,18 / 0,255	
Ventilation output	m³/h	990		2 x 990	
Number of Exhaust pipe	pcs	1	1	2	2
Ironing speed	m/min	1,5 - 8			
Max. ironer capacity (1)	kg/h	65	80	95	120
Max. power consumption	kW	0,7		0,9	
Weight : net weight gross weight	 kg kg	 920 1120	 1150 1350	 1290 1500	 1590 1850
Sound pressure level	dB (A)	67,6			
Gas supply		3/4“			
Gas heating output	kW	30	36	52	66

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.5.C Machine with roller 50 cm, model G

LEGEND FIG.3.5.A

1. Coinmeter (only for version with coinmeter)
2. Control panel
3. Upper cover
4. Emergency stop
5. Manual drive of roller
6. Ironing belts
7. Exhaust ventilation (dimensions-see chapter „4.5. Exhaust system“)
8. Pedal used for starting/stopping belts' movement (according to order, only for version OPL)
9. Pedal microswitch (according to order, only for version OPL)
10. Coin container (only for coin version)
11. Insertion belts/feeding table
12. Cover of filter sieve
13. Name plate
14. Condense drain G3/4“ (only for version „S“)
15. Main switch
16. Upper trough
17. Steam supply G3/4“ (only for version „S“)
18. External protective connector
19. Lower trough
20. Bolts of side cover
21. Main power supply
22. Gas supply G3/4“ (only for version „G“)
23. Electric power supply for heating system (version „E“ only)

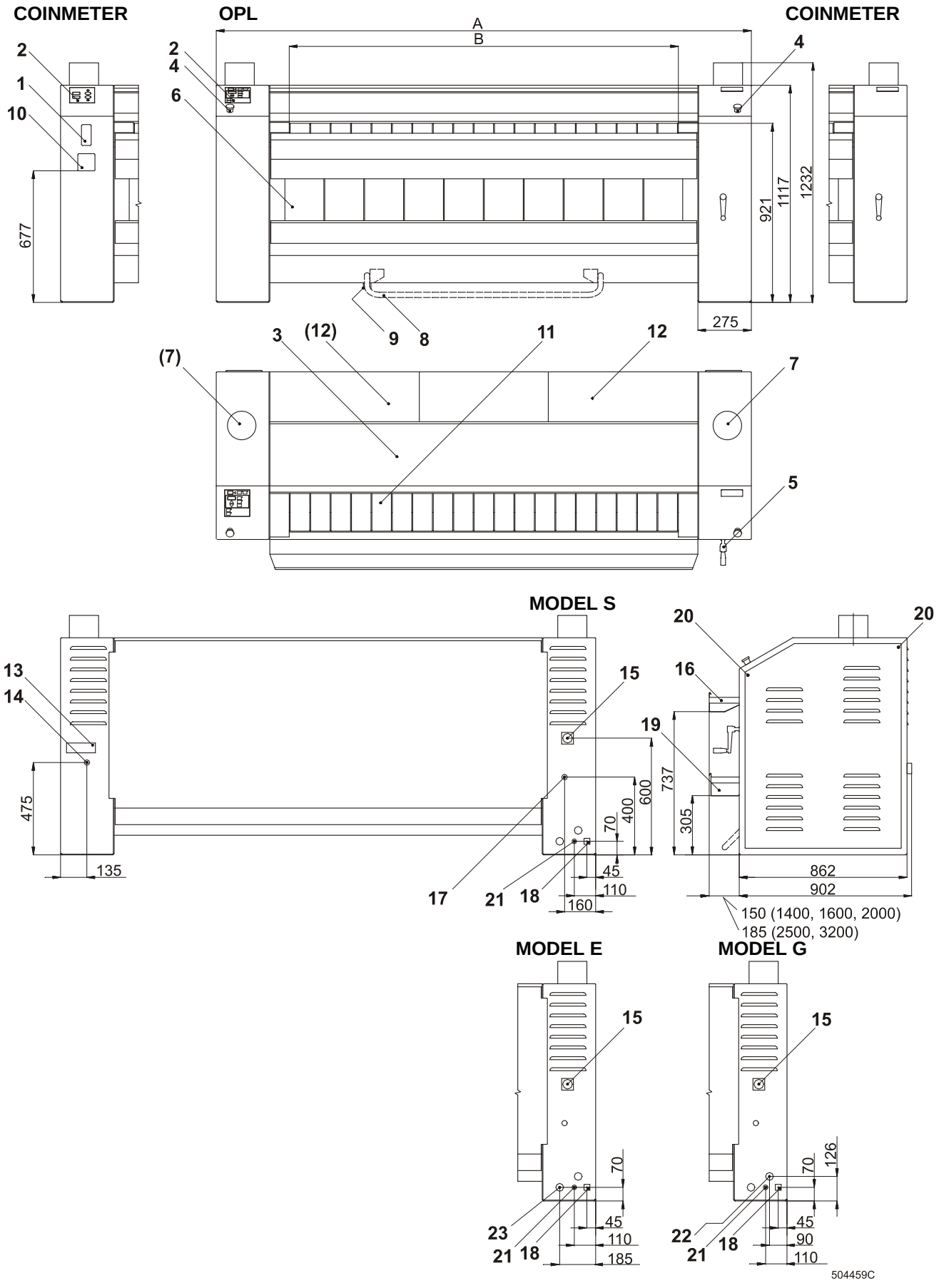


Fig. 3.5.A Placement of components on the machine with 50 cm roller

3.6. IRONING MACHINE WITH FRONT/REAR DELIVERY

PARAMETERS OF THE IRONING MACHINE WITH FRONT/REAR DELIVERY WITH ELECTRICAL HEATING

MODEL E				
Insertion width	**mm**	**2000**	**2500**	**3200**
Packing dimensions : width depth height transportation capacity	 mm mm mm m^3	 2976 1356 1900 7,66	 3576 1356 1900 9,21	 4176 1356 1900 10,75
A - machine width	mm	2750	3350	3950
B - maximum feeding width	mm	2000	2500	3200
Roller diameter	mm	500	500	500
Roller length	mm	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37	0,37	
Ventilator motor output	kW	0,18 / 0,255	2x 0,18 / 0,255	
Number of Exhaust pipe	pcs	1	2	2
Ventilation output	m^3/h	990	2x990	
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	80	95	120
Max. power consumption	kW	38	55	65
Weight : net weight gross weight	 kg kg	 1150 1390	 1430 1680	 1590 1910
Sound pressure level	dB (A)	67,6	67,6	

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.6.A Ironing machine with front/rear delivery, model E

PARAMETERS OF THE MACHINE WITH STEAM HEATING

MODEL S				
Insertion width	**mm**	**2000**	**2500**	**3200**
Packing dimensions:	mm	see model E	see model E	see model E
A - machine width	mm	2750	3350	3950
B - maximum feeding width	mm	2000	2500	3200
Roller diameter	mm	500	500	500
Roller length	mm	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37		
Ventilator motor output	kW	0,18 / 0,255	2 x 0,18 / 0,255	
Ventilation output	m³/h	990	2 x 990	
Number of Exhaust pipe	pcs	1	2	2
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	95	115	145
Max. power consumption	kW	0,7	0,9	0,9
Weight : net weight gross weight	 kg kg	 1200 1430	 1430 1680	 1620 1940
Steam pressure	MPa	0,8 - 1		
Steam consumption - press. 0,9 MPa	kg/h	49	68	88
Steam supply		G3/4“		
Condense drain		G3/4“		
Sound pressure level	dB (A)	67,6		
Max. permitted pressure	MPa	1,0“		
Max. permitted temperature	°C	185		
Volume of pressure tank = cylinder	l (dm³)	348,7	455,5	562,3
Liquid / group	-	steam / 1		
Testing pressure	MPa	1,43		

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.6.B Ironing machine with front/rear delivery, model S

PARAMETERS OF THE IRONING MACHINE WITH FRONT/REAR DELIVERY WITH GAS HEATING

MODEL G				
Insertion width	**mm**	**2000**	**2500**	**3200**
Packing dimensions :	mm	see model E	see model E	see model E
A - machine width	mm	2750	3350	3950
B - maximum feeding width	mm	2000	2500	3200
Roller diameter	mm	500	500	500
Roller length	mm	2100	2700	3300
Machine electrical system	V, Hz	3x380-415V+N 50/60Hz 3x208-240V 50/60Hz		
Motor output	kW	0,37		
Ventilator motor output	kW	0,18 / 0,255	2 x 0,18 / 0,255	
Ventilation output	m³/h	990	2 x 990	
Number of Exhaust pipe	pcs	1	2	2
Ironing speed	m/min	1,5 - 8		
Max. ironer capacity (1)	kg/h	80	95	120
Max. power consumption	kW	0,7	0,9	
Weight : net weight gross weight	 kg kg	 1290 1520	 1440 1700	 1680 2000
Sound pressure level	dB (A)	67,6		
Gas supply		3/4“		
Gas heating output	kW	36	52	66

(1) ISO 9398-1, 100% coverage of the roller

Tab.3.6.C Ironing machine with front/rear delivery, model G

LEGEND FIG.3.6.A

1. Control panel
2. Upper cover
3. Centralstop
4. Manual drive of roller
5. Exhaust ventilation (dimensions-see chapter „4.5. Exhaust system“)
6. Pedal used for starting/stopping belts movement (according to order, only for version OPL)
7. Pedal microswitch (according to order, only for version OPL)
8. Feeding belts/feeding table
9. Cover of filter sieve
10. Name plate
11. Condense drain G3/4“ (only for version „S“)
12. Main switch
13. Upper trough
14. Steam supply G3/4“ (only for version „S“)
15. External protective connector
16. Output tilting table - front
17. Bolts of side cover
18. Main supply of electric power
19. Gas supply G3/4“ (only for version „G“)
20. Power supply for heating system (only for version „E“)
21. Output tilting table - rear (according to order)
22. Output tilting trough - front
23. Output tilting trough - rear

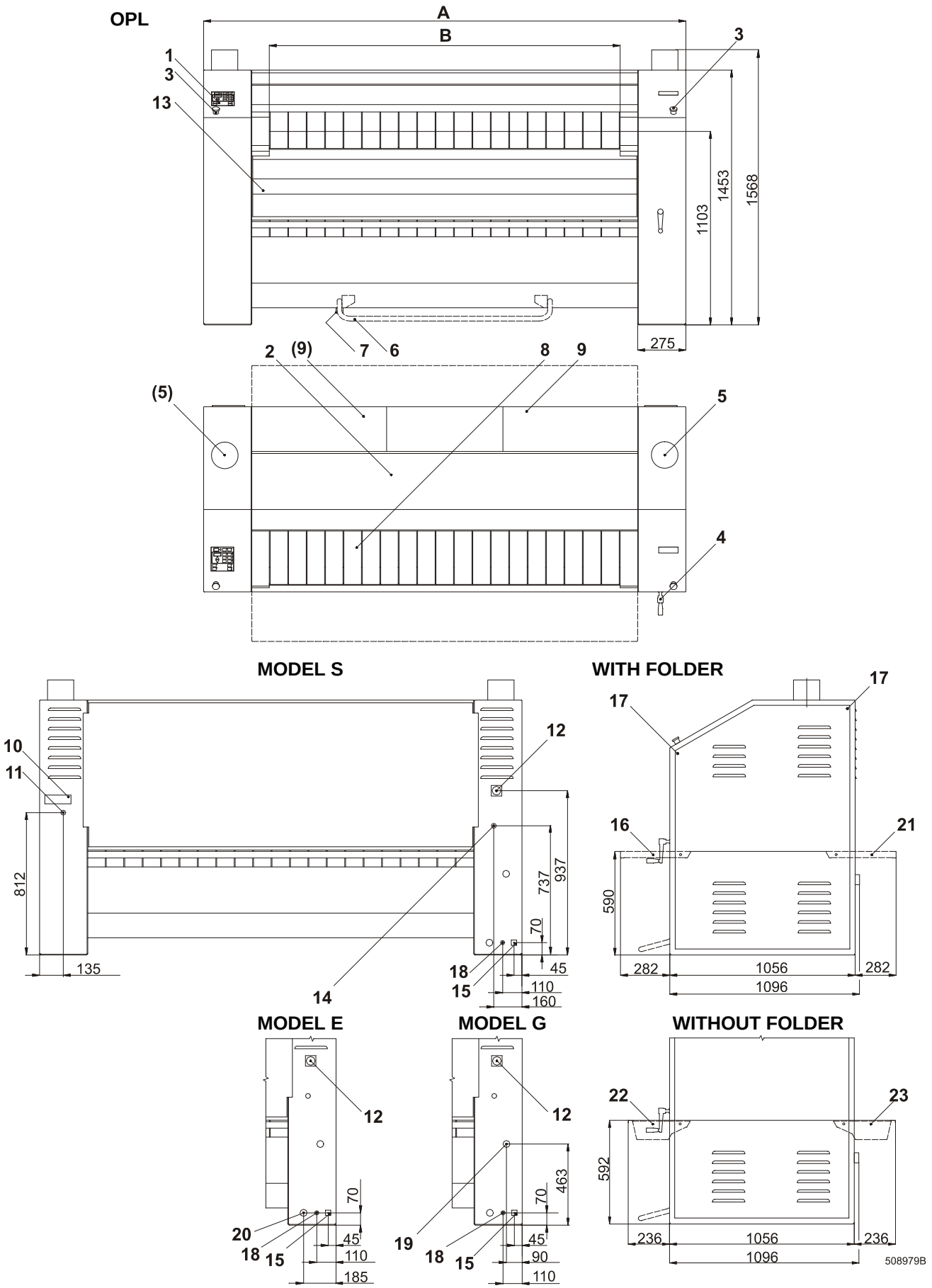


Fig. 3.6.A Layout of components on the ironing machine with front/rear delivery.

4. INSTALLATION

⚠ WARNING !
TO ACHIEVE A FAILURE-FREE OPERATION, THE IRONER MUST BE CORRECTLY BUILT IN ACCORDING TO THIS INSTALLATION MANUAL.
ANY CHANGES IN THE INSTALLATION NOT DESCRIBED IN THIS INSTALLATION MANUAL MUST BE APPROVED BY THE SUPPLIER OR MANUFACTURER OF THE IRONER.

TYPE OF THE MACHINE

Before you start the installation, check the type of your ironer, roller diameter, insertion width and electrical connection according to the production label (pos.13.-fig.3.4.A and 3.5.A, pos.10.-fig.3.6.A), placed on the left stand of the machine.

FOR MACHINES WITH GAS HEATING

Further you have to check the country of destination, category, pressure and type of gas (see chapter „3.2. Machine design“) on serial plate.

4.1. MANIPULATION AND UNPACKING

DURING TRANSPORT

The ironer will be installed in a building according to its detailed layout. All passages and gaps through which the machine will be transported should comply with the width, depth and height of the machine. The machine dimensions are illustrated in chap. „3. Technical information“.

Machine roller	cm	35	50	50 Ironer with front/rear delivery
Width D	mm	920	1050	1320

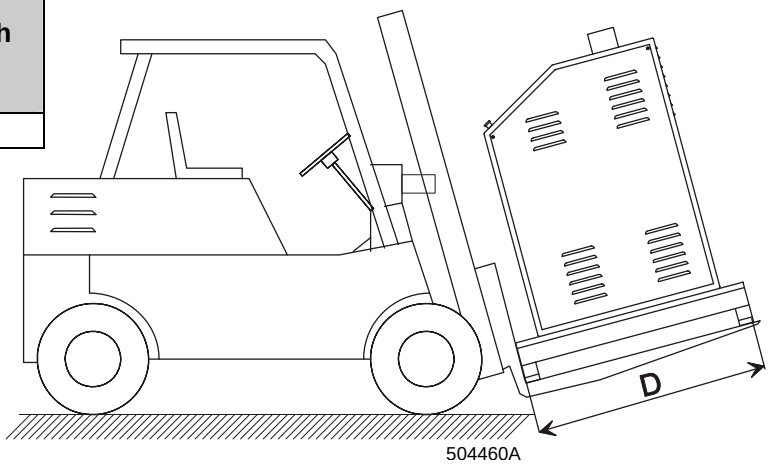
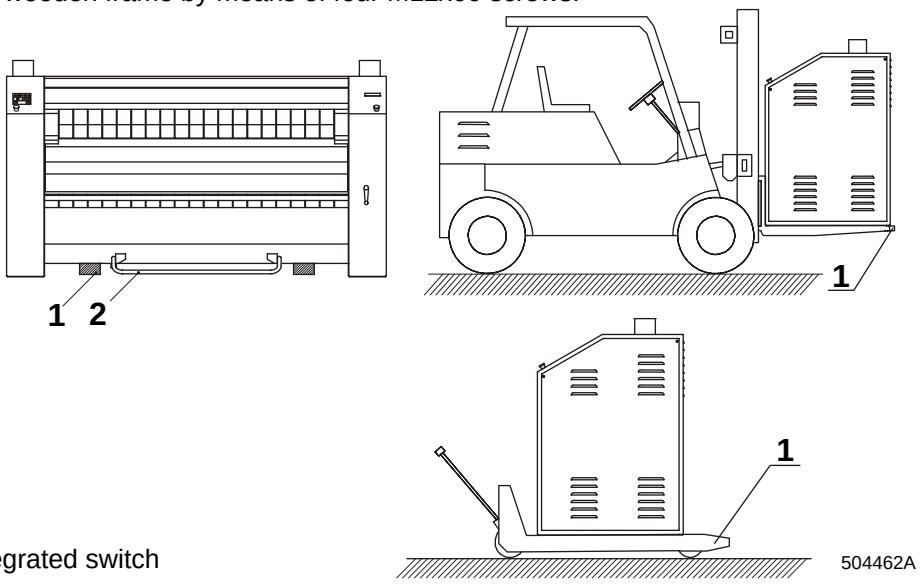


Fig. 4.1.A Dimensions for transport

MANIPULATION

Only a qualified worker can handle or operate the ironer. The ironer is delivered to the customer in a cratewood packaging and the machine is additionally protected by polyethylene foil. The machine is screwed into the wooden frame by means of four M12x60 screws.



1. Fork lift forks
2. Pedal with integrated switch

Fig. 4.1.B Manipulation with machine by means of high-lift truck or pallet truck

MANIPULATION WITH MACHINE BY MEANS OF HIGH-LIFT TRUCK OR PALLET TRUCK

Before you install the ironer on its place, remove four anchor bolts and lift the machine up by high-lift truck or manual pallet truck, which you shift under the main lower bent (fig. 4.1.B). Install the machine.

⚠ WARNING!
WHEN SLIPPING FORK OF FORK LIFTING DEVICE UNDER THE MAIN BEAMS OF THE MACHINE, YOU MUST AVOID DAMAGE OF THE PEDAL MICROSWITCH (PROVIDING THAT MACHINE IS EQUIPED WITH SUCH A PEDAL). IN CASE OF NEED IT IS POSSIBLE TO REMOVE THE PEDAL WITH INTEGRATED MICROSWITCH (FIG. 4.1.B – POS. 2).

HANDLING WITH HUNG MACHINE

In case of need and under certain conditions, it is possible to transport the machine in hanging position. Before the ironer is installed on the place, you must remove wrapping and four anchor bolts. After removal upper front covers, holders of covers and pipes of ribbons, the transport eyes must be installed into prepared openings (fig.4.1.C, pos.2 – special equipment). Hanger must be fitted with the spacing bar (fig. 4.1.C pos.1) in such a way, so that eyes would be loaded only with vertical force when lifting the machine up (fig. 4.1. C).

1. Transport bar
2. Transport eyes

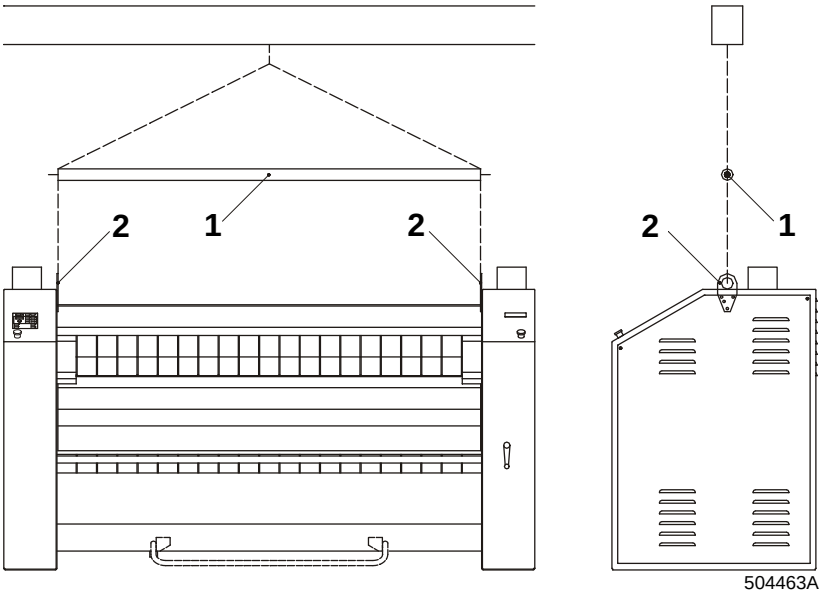


Fig. 4.1.C Handling with hung machine

ACCESSORIES DELIVERED WITH THE MACHINE

Check if all accessories have been delivered according to the following list:

Installation and maintenance manual	1 pc (this manual)
User´s manual	1 pc
Programming manual	1 pc
Spare part manual	1 pc
Machine electrical diagram	2 pc
Screw M16x160	4 pcs
Nut M16	4 pcs
Washer	4 pcs

4.2. WORKSTATION REQUIREMENTS

WORKING CONDITIONS OF THE MACHINE

The ironer is designed for the working environment where the temperature is in the range from +15°C to +40°C, where the ambient temperature does not reach +35°C for a period of 24 hours. Elevation above sea level within 1000 m. Relative humidity should range from 30% to 70% without condensation.

The machine is not designed to be placed in an environment where it can come into contact with splashing or spraying water. Do not store or install the machine where it can be subject to environmental conditions (rain, wind) or extreme humidity. When the ironer bedews as a result of sudden climate change, the water must not run down the walls or covers of the machine or cover the floor.

The manufacturer is not responsible for machine corrosion caused by non fulfilment of determined air ventilation in the room (i.e.:vapors, invasive chemical elements or dry cleaning process).

⚠ WARNING !
BE CAREFUL WHEN USING CHEMICAL CLEANED LAUNDRY WITH CHEMICAL VAPOUR AND EVAPORATED GAS, WHICH SHOULD LEAD TO TOXICAL AND RUST DANGER. IT IS NECESSARY TO TAKE MAXIMAL CARE TO PREVENT SUCH SITUATION.

The fresh air inlet area has to be 5 times bigger than the extraction pipes of the vapours. In case of gas heating, the required flow of fresh air for the supply in air of the combustion has to be of 2 m^3/h per kW.

In the case of several machines or boilers in the same room with forced or conventional ventilation the diameter of the outside hole must be at least a grand total of diameters of all machines.

To avoid the air draught in laundry the machines with conventional ventilation should not be placed between forced ventilated machines and ventilator holes.

REQUIRED ROOM DIMENSIONS

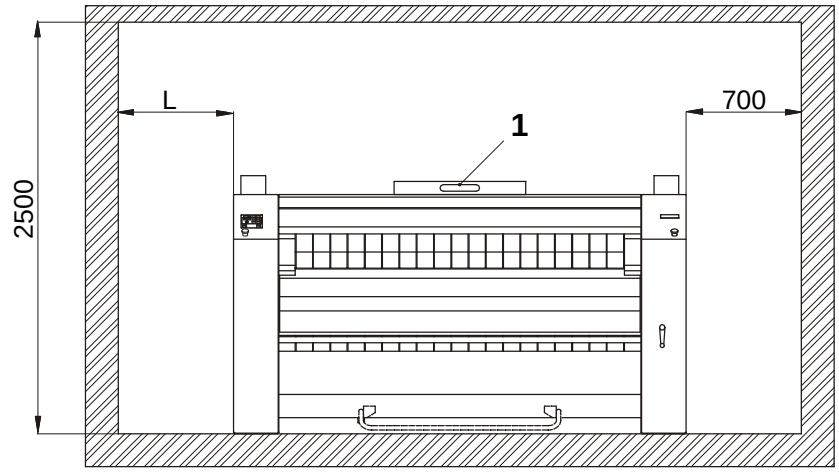
⚠ WARNING !
PROVIDED THAT THE REQUIREMENTS IN RESPECT TO ROOM DIMENSIONS ARE NOT MET, THE MAINTENANCE OF THE IRONER MAY BE DIFFICULT.

Figure 4.2.A shows minimum dimensions of a room which are required for positioning of the ironer.

Machine roller (cm)	Insertion width (mm)	DISTANCE „L“ (m)		
		MODEL		
		E	S	G
35	1400	1,2	0,7	1,2
	1600	1,2	0,7	1,2
	2000	1,6	0,7	2
50	1600	1,2	0,7	1,2
	2000	1,6	0,7	1,6
	2500	2,2	0,7	2,2
	3200	2,8	0,7	2,8
50 Ironer with front/rear delivery	2000	1,6	0,7	1,6
	2500	2,2	0,7	2,2
	3200	2,8	0,7	2,8

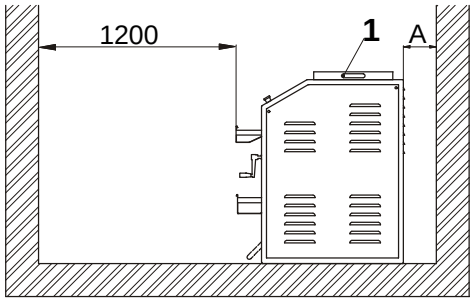
Tab.4.2. Machine space

If it is possible to shift the machine forward due to service (removal of rear panels) to A min.= 600 mm, then the machine working position can be A min.= 200 mm. If it is not possible to ensure this, you must keep: A min.= 600 mm.

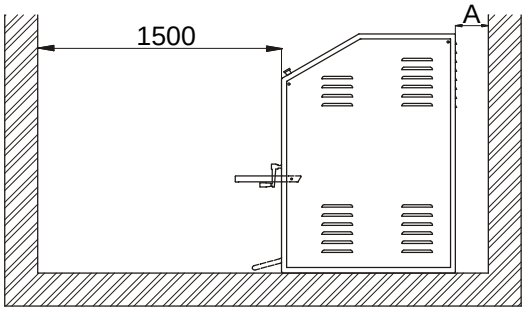


1. Water level

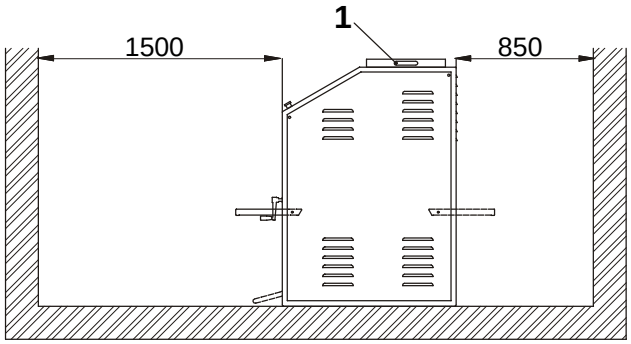
IRONER 35, 50



IRONER WITH FOLDER frontal output



IRONER WITH FRONT/REAR DELIVERY, frontal and rear output



504461B

Fig. 4.2.A Minimal required dimensions of rooms (dimensions are in mm)

4.3. MACHINE POSITIONING ON THE FLOOR

It is not necessary to anchor the ironer to the floor, however, when desired, the ironer can be anchored to the floor. In this case, use the 4 holes with a diameter „Z“ mm in the stands (fig. 4.3.A)

⚠ WARNING !
THE IRONER MUST BE POSITIONED ON A FLAT AND SMOOTH SURFACE WHILE ITS INCLINATION DOES NOT EXCEED 0,5%. IT IS IMPORTANT TO INSTALL IT USING A WATER LEVEL BY PLACING THE SUPPORTS UNDER THE IRONER. CHECK THE CORRECT POSITIONING WITH A WATER LEVEL PLACED ON THE MACHINE TOP, ON THE STANDS OR PREFERABLY ON THE IRONING ROLLER (FIG. 4.3.A).

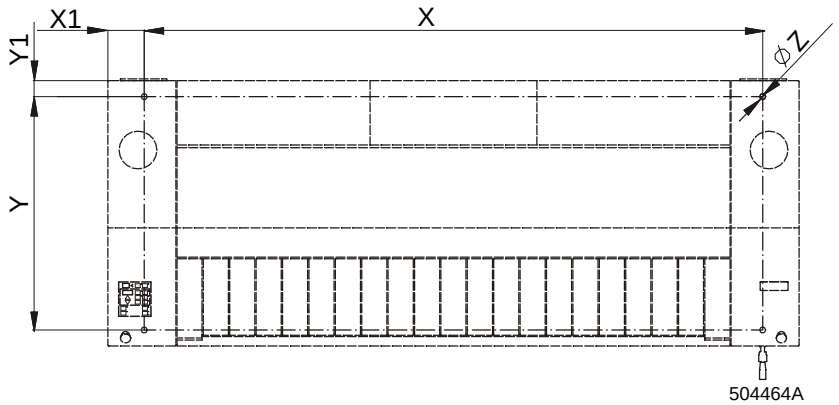


Fig. 4.3.A Anchoring dimensions are from door and frame edges

Machine roller (cm)	Insertion width (mm)	X (mm)	x1 (mm)	Y (mm)	y1 (mm)	∅ Z (mm)
35	**1400**	1 860	145	618	63	23
	1600	2 060				
	2000	2 460				
50	**1600**	2 060		734	64	
	2000	2 460				
	2500	3 060				
	3200	3 660				
50 Ironer with front/rear delivery	**2000**	2 460		928		
	2500	3 060				
	3200	3 660				

Tab.4.3. Anchoring dimensions

4.4. ELECTRICAL CONNECTION

⚠ WARNING !
THE MACHINE MUST BE CONNECTED TO THE POWER, GROUND, VENTILATION AND STEAM, GAS SUPPLY ACCORDING TO THE INSTALLATION MANUAL, IN COMPLIANCE WITH THE LOCAL STANDARDS DONE BY QUALIFIED TECHNICIANS WITH PROPER AUTHORIZATION. THE VALID STANDARDS FOR CONNECTING TO THE LOCAL POWER NETWORK (TT / TN / IT, ...) MUST BE FOLLOWED.

CONNECTION OF MACHINE WITHOUT A LAUNDRY ROOM EARTH LEAKAGE TRIP

The ironers are designed for the connection to four-conductor (TN-C) and five-conductor (TN-S) distribution systems in the voltage range of 380 to 415V 50/60Hz and 208-240V 50/60Hz. Fig. 4.4. A illustrates the connection to individual electrical networks. If the machine is not equipped with a main switch then supply disconnecting devices need to be provided in the installation for all electrical supplies connected to the machine, in accordance with EN 60204-1 standard, point 5.3.

1. Phase conductors
2. Protection conductor
3. Power supply protection
4. Machine
5. Laundry switchboard
6. Main switch = supply terminal board

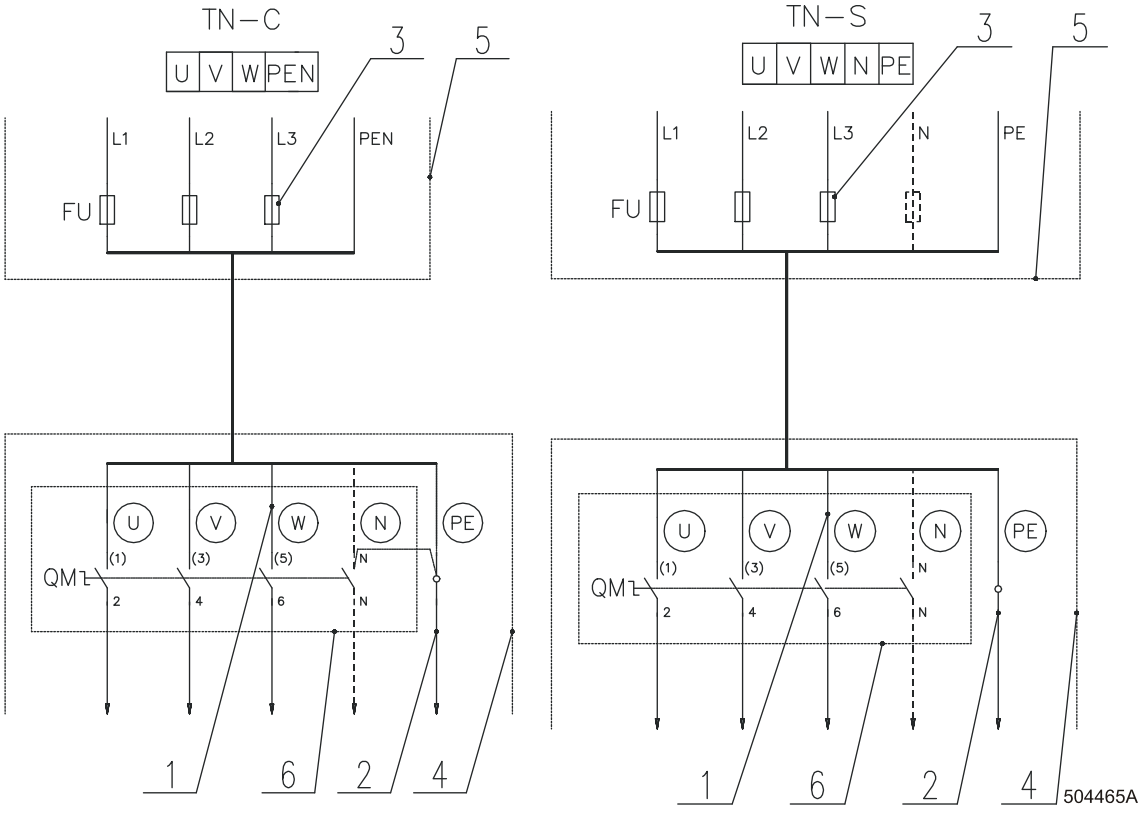


Fig. 4.4.A Machine connection to TN-C and TN-S electrical network (without an earth leakage trip)

CONNECTION OF MACHINE WITH A LAUNDRY ROOM EARTH LEAKAGE TRIP

In order to increase the safety of operators or service men during work and maintenance on the machine, producer recommends to mount an earth leakage trip in the laundry room switchboard, with a trip current of 30 mA - for ironer, 100mA - for ironer with front/rear delivery. Main contacts of the earth leakage trip must correspond to the stated power supply. The earth leakage trip connection and machine connection to such a network is shown on fig. 4.4.B.

1. Phase conductors
2. Protection conductor
3. Power supply protection
4. Machine
5. Laundry switchboard
6. Main switch = supply terminal board
7. Earth leakage trip (see tab.4.4.A, B)

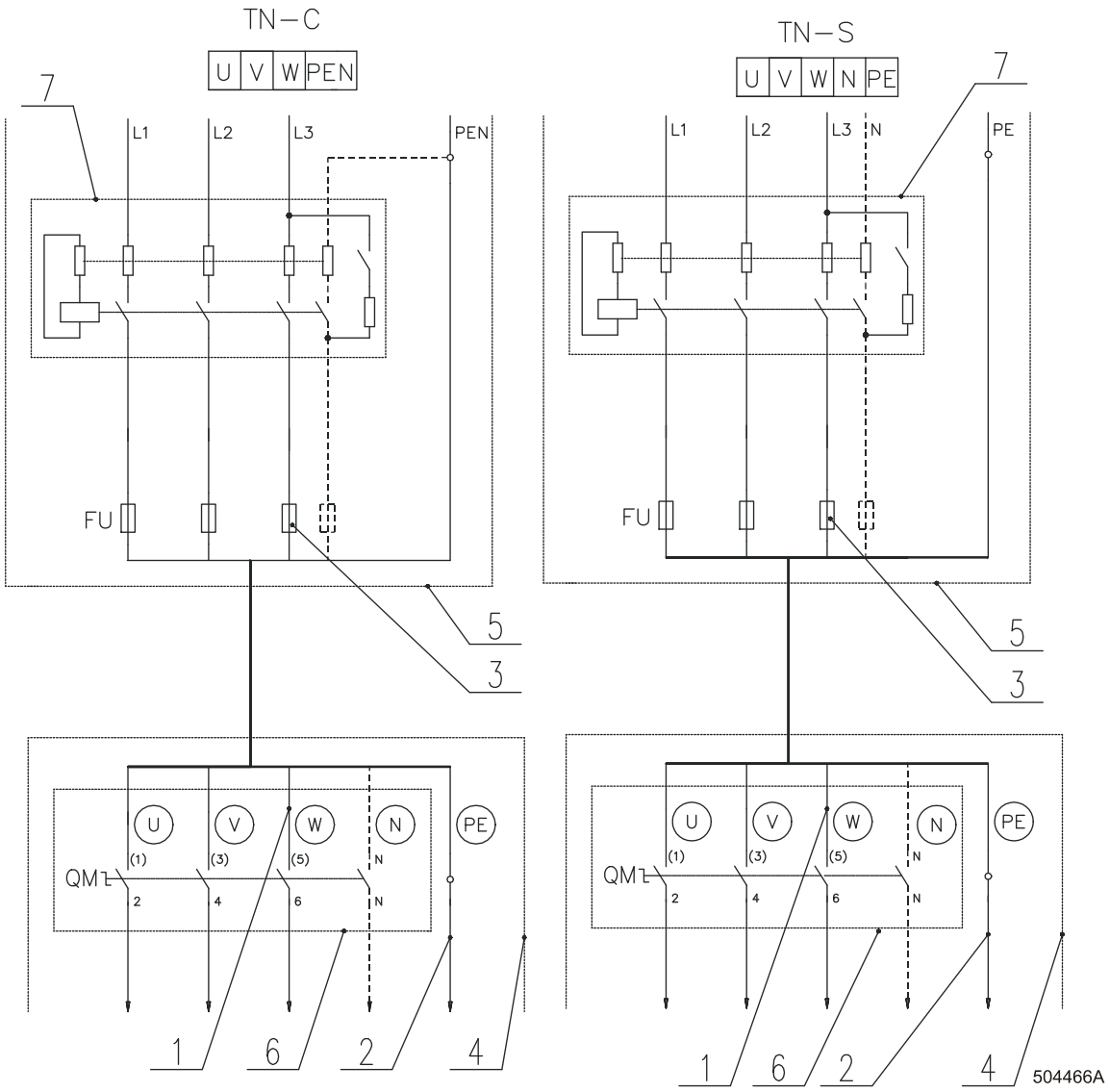


Fig. 4.4.B shows connection to electrical network TN-C and TN-S with the earth leakage trip.

⚠ WARNING!
IF IN THE PLACE OF INSTALLATION THE STANDARD EN 60519 OBSERVANCE IS REQUIRED, THE MACHINE MUST BE CONNECTED VIA AN EARTH LEAKAGE TRIP.

Recommended types of the earth leakage trips for individual types of machines are stated in tab.4.4.A,B.

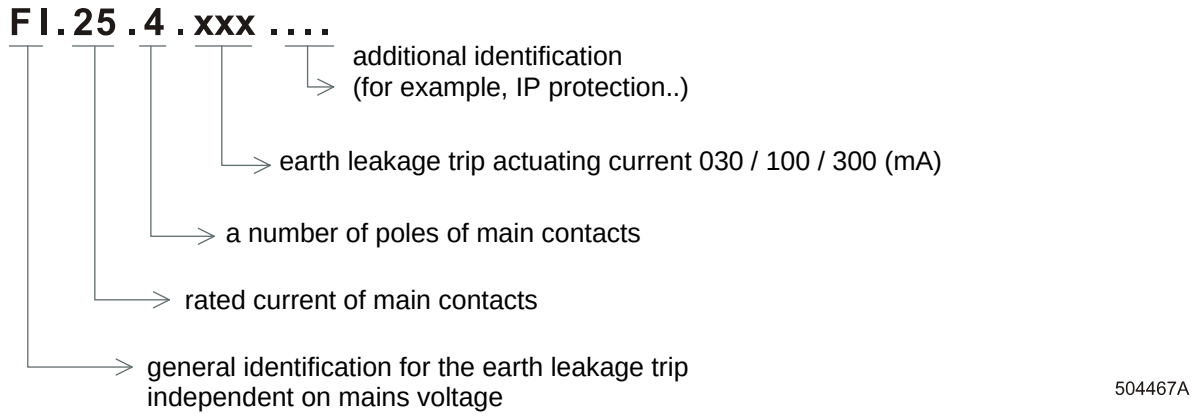
MODEL E					
RECOMMENDED TYPES OF THE EARTH LEAKAGE TRIPS					
Machine roller (cm)	**Insertion width (mm)**	**VOLTAGE**	**ELECTRIC HEATING POWER SUPPLY KW**	**MAX. CURRENT (A)**	**EARTH LEAKAGE TRIP**
35	**1400**	400 V	15,9 kW	26	FI.40.4.xxx. ...
		230 V	15,9 kW	42	FI.63.4.xxx. ...
	1600	400 V	24,3 kW	38	FI.63.4.xxx. ...
		230 V	24,3 kW	65	FI.80.4.xxx. ...
	2000	400 V	27,9 kW	43	FI.63.4.xxx. ...
		230 V	27,9 kW	75	FI.80.4.xxx. ...
50	**1600**	400 V	32,4 kW	49	FI.63.4.xxx. ...
		230 V	32,4 kW	85	FI.100.4.xxx. ...
50 **50** **Ironer with front/rear delivery**	**2000**	400 V	37,2 kW	58	FI.80.4.xxx. ...
		230 V	37,2 kW	97	FI.125.4.xxx. ...
	2500	400 V	54 kW	81	FI.80.4.xxx. ...
		230 V	54 kW	140	FI.160.4.xxx. ...
	3200	400 V	64,8 kW	97	FI.125.4.xxx. ...
		230 V	64,8 kW	168	FI.250.4.xxx. ...

Tab. 4.4.A Earth leakage trips of machines with electrical heating

MODEL G, S					
RECOMMENDED TYPE OF THE EARTH LEAKAGE TRIPS					
Machine roller (cm)	**Insertion width (mm)**	**VOLTAGE**	**HEATING TYPE**	**MAX. CURRENT (A)**	**EARTH LEAKAGE TRIP**
35	**1400**	400/230V	gas, steam	6	FI.20.4.030. ...
	1600				
	2000				
50	**1600**				
	2000				
	2500				
	3200				
50 **Ironer with front/rear delivery**	**2000**			10	
	2500				
	3200				

Tab. 4.4.B Earth leakage trips of machines with gas and steam heating

An example of marking of the earth leakage trip, which does not depend on the mains voltage (FI...):


FI.25.4.xxx ....
additional identification
(for example, IP protection..)
earth leakage trip actuating current 030 / 100 / 300 (mA)
a number of poles of main contacts
rated current of main contacts
general identification for the earth leakage trip
independent on mains voltage
504467A

⚠ WARNING !
AS THE CONTROL CIRCUITS ARE FED FROM THE SEPARATE TRANSFORMER, THE PROTECTION BY MEANS OF THE EARTH LEAKAGE TRIP IS LIMITED TO POWER ELECTRIC CIRCUITS, I.E. ENGINES, HEATING ELEMENTS, ENGINE CONTACTORS, MAIN SWITCH, ETC.... SEE THE ELECTRICAL DIAGRAM.

SUPPLY CABLE AND PROTECTION

Use a cable or cord with copper conductors to connect the machine to the electrical network.
Supply cable cross section depends on the machine's type of heating and total power consumption.
Protection of the cable against a short circuit or over load must be done with fuses or circuit breakers in the laundry room switch board. Recommended cross sections of supply cables and fuses values for their protection or various types of machines are stated in tables 4.4.C, D, E.

MODEL E				
Machine roller (cm)	**Insertion width (mm)**	**VOLTAGE**	**HEATING POWER SUPPLY (kW)**	**Power supply protection (A)**
35	**1400**	380 - 415V	15,9	32
		208 - 240V		50
	1600	380 - 415V	24,3	50
		208 - 240V		80
	2000	380 - 415V	27,9	50
		208 - 240V		80
50 **50** **Ironer with front/rear delivery**	**1600**	380 - 415V	32,4	63
		208 - 240V		100
	2000	380 - 415V	37,2	63
		208 - 240V		125
	2500	380 - 415V	54	100
		208 - 240V		150
	3200	380 - 415V	64,8	125
		208 - 240V		180

Tab. 4.4.C Supply cables of machines with electrical heating

MODEL S, G				
Machine roller (cm)	**Insertion width (mm)**	**VOLTAGE**	**HEATING TYPE**	**Power supply protection (A)**
35	**1400**	380 - 415V	steam, gas	6
	1600			
	2000			
50	**1600**	208-240V		
	2000			
	2500			
	3200			
50 **Ironer with front/rear delivery**	**2000**			10
	2500			
	3200			

Tab. 4.4.D Supply cables of machines with gas and steam heating

Power supply protection device nominal current (US)		Min phase conductor section in mm^2 (AWG)	Min Protection conductor section in mm^2 (AWG)
Automatic circuit breakers A	Fuses A		
16 (15)	10 (10)	1.5 (AWG 15)	1.5 (AWG 15)
20 (20)	16 (15)	2.5 (AWG 13)	2.5 (AWG 13)
25 (-)	20 (20)	4 (AWG 11)	4 (AWG 11)
40 (40)	32 (30)	6 (AWG 9)	6 (AWG 9)
63(-)	50 (50)	10 (AWG 7)	10 (AWG 7)
80	63	16	16
100	80	25	16
125	100	35	25
160	125	50	35
200	160	70	50
250	200	95	70
300	250	120	95

Tab.4.4 Manufacturer's recommended minimal conductor section

CABLE PREPARATION

⚠ WARNING !
THE IRONING MACHINE IS INTENDED TO BE PERMANENTLY CONNECTED TO FIXED WIRING.

Use a cable or cord with copper conductors. Adapt the conductor ends according to the description in fig. 4.4.C. A green-yellow conductor (protective) must be longer, so that in the event that a cable is pulled out accidentally, the conductor is the last to be disconnected. When using the cable (hard copper conductors), strip the individual cores in such a way to avoid the protrusion of a stripped part from the terminal when the conductor is connected into the device (7-dimension X). When using a cord (stranded copper conductors) the individual cores can be stripped in a similar way as in the case of a cable, or moulded tubes (6) can be used. In this case use tubes with an insulated neck to avoid any contact to a part under current after the conductor connection.

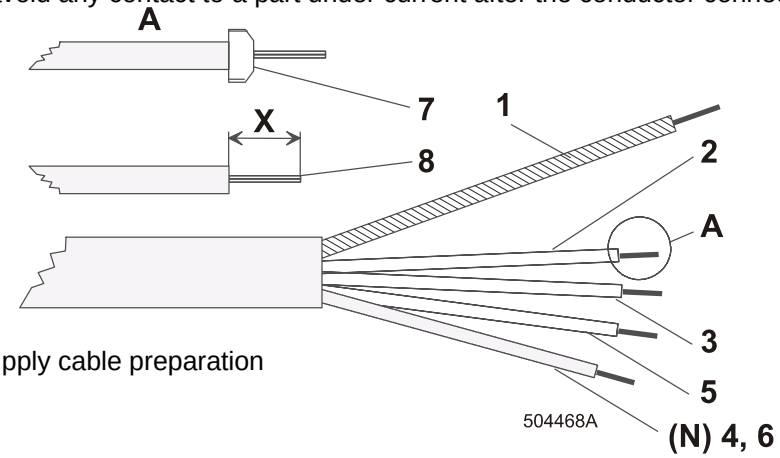


Fig. 4.4.C Supply cable preparation

1. Green-yellow protection conductor
2. Black-phase conductor
3. Brown-phase conductor (3 phase execution)
4. Blue-neutral conductor (single phase execution)
5. Black-phase conductor (3 phase execution)
6. Blue-neutral conductor (3 phase gas heating execution)
7. The neck of the moulded tube must be insulated to avoid any contact to a part under current (conductor) when the main switch is disconnected
8. The stripped length of the conductors must not protrude from the main switch terminal (supply switchboard)

SUPPLY CABLE ATTACHMENT

The cable can be attached to the machine in two ways:

– from a cable channel (from below)
– from a cable grate (from above)

If the cable is attached from above it is recommended to provide a sag in the cable in front of the entry in the cable bushing (see fig. 4.4.D). In this way any running condensed water into the bushing and/or machine can be avoided.

MECHANICAL CABLE SECURING

When the cable is laced through the bushing (2), tighten the sealing nut of the bushing. In this way the rubber ring in the bushing is pressed, thus securing the cable mechanically and against the water. Provided that this mechanical sealing is insufficient, use the securing clamp (3).

CONNECTION POINT

The supply cable is connected to the main switch of the machine (1). The phase terminals are identified by U, V, W. Connect the protection conductor directly to the protection terminal located on the internal side of the left stand of the machine. The terminal is identified by PE.

1. Main switch
2. Cable bushing
3. Securing clamp
4. External protective terminal
5. Internal protective terminal

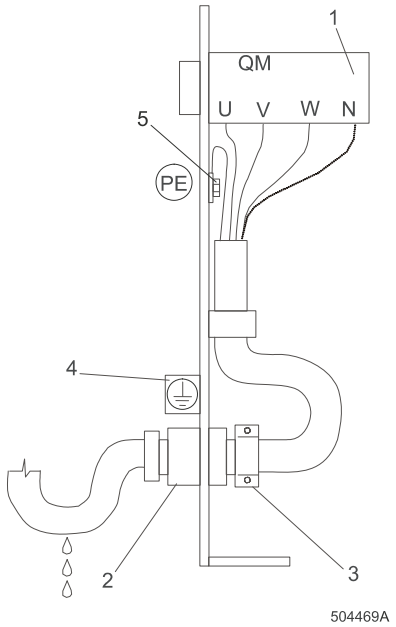


Fig. 4.4.D Main power supply connection

LAUNDRY ROOM PROTECTIVE MACHINE CONNECTION

For safety reasons it is necessary to connect the machine to the laundry protection system. The external protective terminal of the machine (fig.4.4.E-pos.4,M8) located on the rear part of the left stand (fig.4.4.E-pos.4) serves for this purpose and it is marked with an earthing mark. The protection conductor enabling this connection is not part of the delivery with the machine. The protection conductor cross section must at least correspond to the figures described in tab. 4.4.C, D, E. However, for protection purposes, with a supply cable cross section below 2,5 mm² we recommend to select a larger conductor cross section at least 4 mm².
The protective connection and earthing of machines prevents unfavourable effects of static electricity which may adversely affect the machine operation.

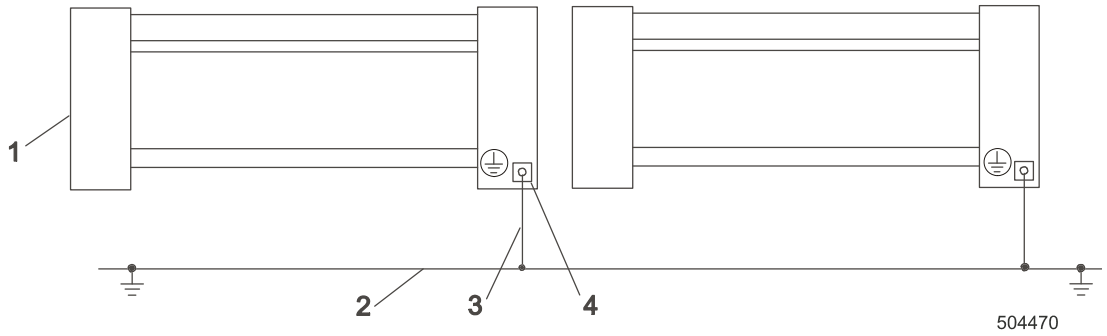


Fig. 4.4.E Protective machine connection

1. Machine (rear view)
2. Laundry room protective connection
3. Protection conductor-machine connection
4. External protective terminal

4.5. EXHAUST SYSTEM

1. Standard upper outlet
2. Second upper outlet for machine with insertion width 2500 and 3200 mm

Machine roller (cm)	35	50		50 Ironer with front/rear delivery	
Insertion width (mm)	1400				
	1600	1600	2500	1600	2500
	2000	2000	3200		3200
DIMENSION „A“ (mm)	119	120	120	120	120
DIMENSION „B“ (mm)	267,5	276	276	276	276
DIAMETER „D“ (mm)	150	150	2 x 150	150	2 x 150

Tab. 4.5.A

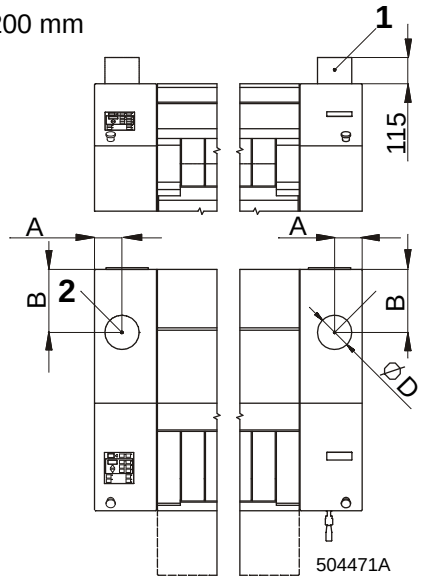


Fig. 4.5.A Exhaust connection

EXHAUST VENTILATION

The exhaust piping is led out in the upper part of the right stand (and left stand for machines with insertion width 2500 and 3200 mm). The steam outlet must be separately provided in the shortest way outside the building (fig.4.5.B). Piping section must not be smaller than an output of the machine. Maximal piping length is 5 m. There is necessary additional ventilator inside piping in the case of longer piping. Only in necessary case use sharply bent knees 90°. Inner surface of outlet piping has to be smooth. Use galvanized metal-plates for ventilation. Steam escape conduit must be fixed in such a way to be easily dismounted. Exhausting air should not point to wall, ceiling or other part of the building. Aerating areas in the room has to be twice higher than flow of suction ventilator of each ironer.

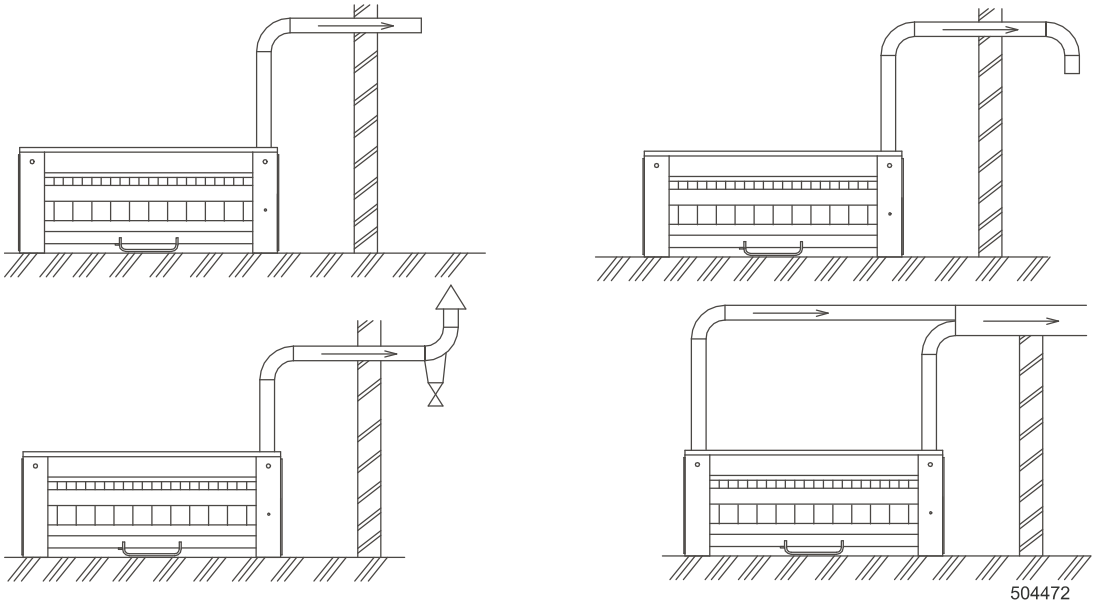


Fig.4.5.B. Exhaust ventilation line

Machine roller (cm)	Insertion width (mm)	A maximum rate of flow without pressure losses (m^3/h)	Minimal flow rate (m^3/h)	The total available pressure at closed flow (mm H_2O)	Approximate air temperature escaping from the machine at working temperature of 160-180°C (°C)
35	1400	990	500	23,8	70 – 90
	1600				
	2000				
50	1600	990	500	23,8	70 – 90
50	2000				
50 Ironer with front/rear delivery	2500	2 x 990	2 x 500	2x 23,8	70 – 90
	3200				

Tab. 4.5.B

Provided that several ironers are installed with one common exhaust pipe, this pipe must comply with the same value (preferably the lowest value) of the air resistance of every ironer (Fig.4.5.C).

⚠ WARNING !
CHECK IF THERE IS NOT ANY PRODUCT LEAKAGE, (GAS) BETWEEN CONNECTION OF OUTLET PIPING TO THE MACHINE AND PIPING ITSELF. IF SO, IT IS NECESSARY TO ELIMINATE SUCH UNTIGHTNESS.

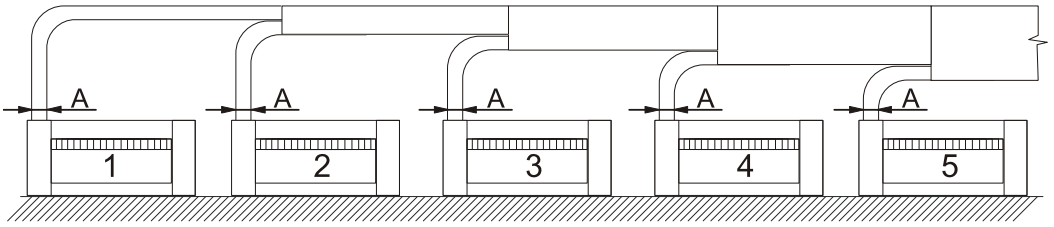


Fig.4.5.C Exhaust ventilation line for range of ironers 504473A

Number of exhaust pipe		1	2	3	4	5
Exhaust pipe outside diameter	inches	6	8,5	10,5	12	13,5
	mm	153	216	265	306	342

Tab. 4.5.C. Exhaust pipe minimal dimensions

Minimal flow rate (m^3/h)	Minimal flow rate in the spot „A“ (obr. 4.5.C) (m/s)
500	8
2 x 500	

Tab. 4.5.D Minimal flow rate

4.6. STEAM CONNECTION FOR STEAM HEATING

The installation of the steam supply can be carried out only by the person with relevant authorization.
The scheme of the steam supply and the exhaust of condense is in fig.4.6.A.
Steam pressure: 0,8 - 1,0 MPa (8 - 10 bars)

⚠ WARNING !
BY EXCEEDING THE MAX. PRESSURE ONE CAN BE SERIOUSLY WOUNDED OR EVEN KILLED!

⚠ WARNING !
BEFORE EVERY STEAM VALVE IT IS NECESSARY TO INSERT THE FILTER WITH PERMEABILITY UP TO 300 MICROMETERS. POSSIBLE DIRT BIGGER THAN 300 MICROMETERS MIGHT DAMAGE THE STEAM VALVE AND CAUSE ITS LEAKAGE.

1. Machine
2. Steam supply G 3/4“
3. Filter G 3/4“ (part of delivery)
4. Manual steam valve
5. Drainage cock
6. Check valve
7. Condensation tank with drain
8. Condense drain
9. Manometer

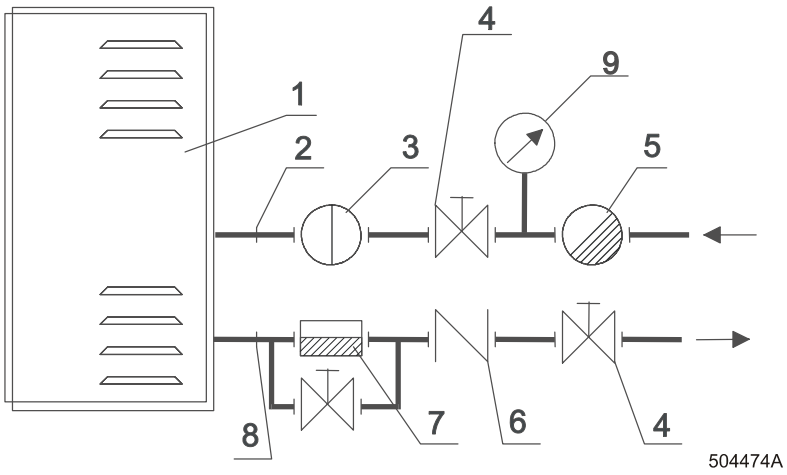


Fig. 4.6.A Components of steam lines

PRESSURE	bar	1	2	3	4	5	6	7	8	9	10
TEMPERATURE	°C	119	133	143	151	158	164	169	174	179	184

Tab. 4.6.A Table of temperatures depending on the steam pressure

For the steam installation for maximum pressure of 10 bar, ensure:
– steam valve with manual closure 2 pcs
– draining valve 1 pc
– condense tank 1 pc
– overflow (by - pass) valve 1 pc
– backward valve (flap) 1 pc
Sizes and types of steam fittings are designed by designer of the laundry.

Connect the steam installation according to the scheme to back part of the machine to the diameter G3/4“ for the input and the diameter G3/4“ for the condense output.

1. Steam box
2. Filter
3. Electromagnetic valve
4. Inlet steam hose

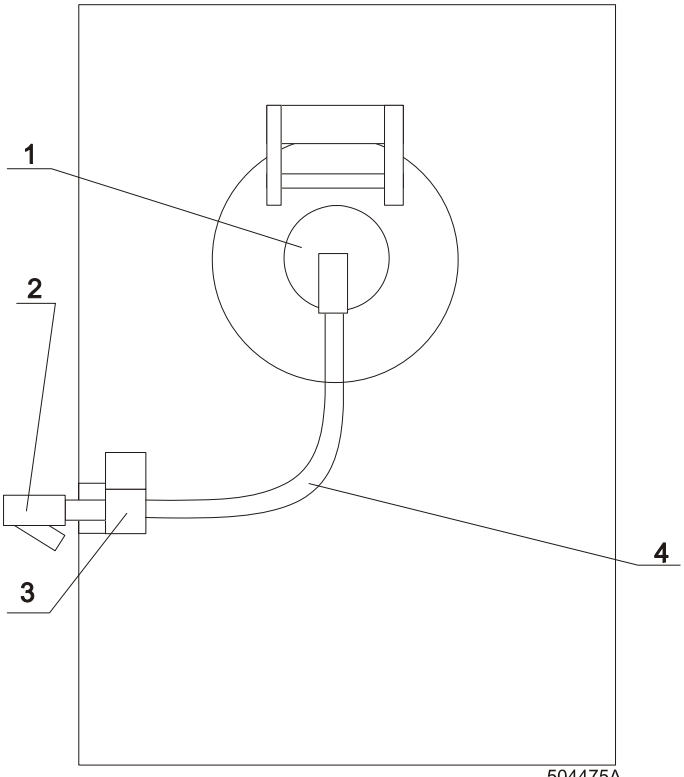


Fig. 4.6.B Scheme of the steam input installation

1. Steam box
2. Outlet condense hose

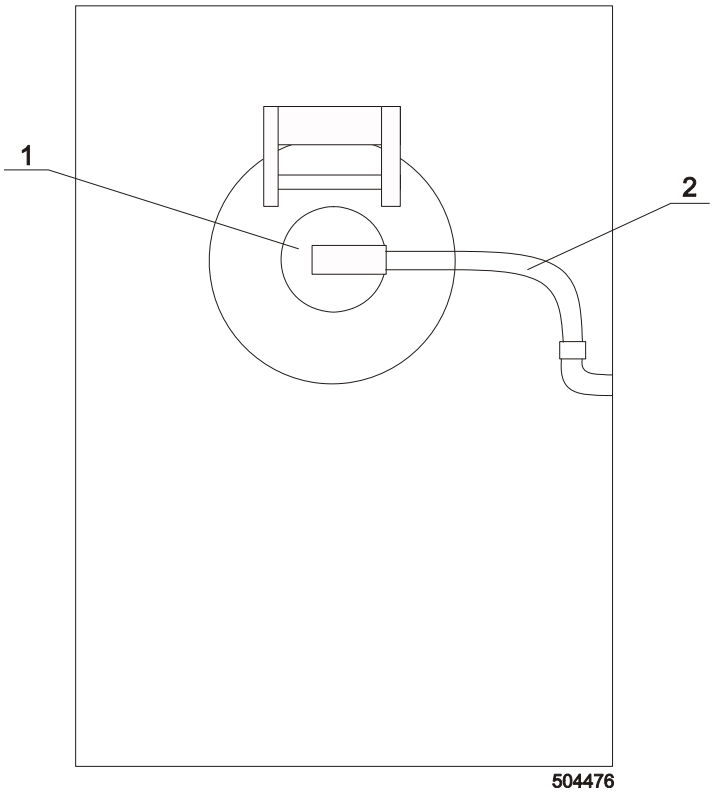


Fig. 4.6.C Scheme of the condensation output installation

4.7. GAS CONNECTION FOR GAS HEATING

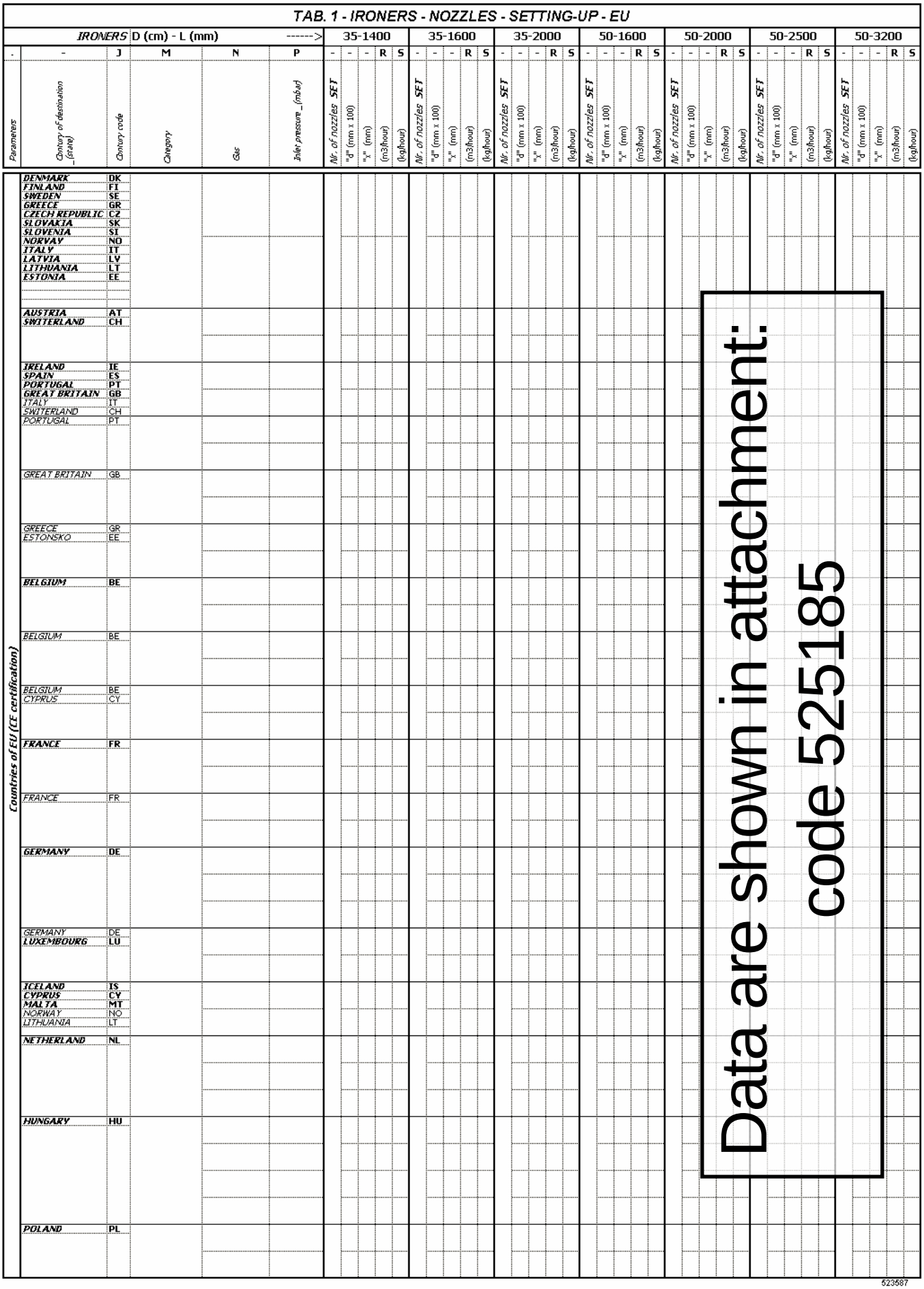
⚠ WARNING !
IT IS OBLIGATORY, THAT THE GAS INSTALLATION AND ITS LATER REPAIRS MUST BE DONE BY AN AUTHORIZED ORGANIZATION. ALL USED INSTALLATION MATERIAL (PRESSURE REDUCING VALVE, HAND OPERATED VALVE, ETC.) MUST COMPLY WITH THE STANDARDS VALID IN THE COUNTRY WHERE THE MACHINE IS BEING USED.

These machines are designed to use the type of gas indicated on the production label (see chapter „3.4. Ironing machine with roller 35 cm“, „3.5. Ironing machine with roller 50 cm“, „3.6. Ironing machine with front/rear delivery“). It is not allowed to use other kinds of gas. For each type of machine and corresponding gas corresponding nozzle must be used.
Generally it is not allowed to install gas machines in cellars (basements) as well as in rooms which cannot be ventilated properly. It is necessary to consult it with the gas supplier).
The machine has to be installed in compliance with the appropriate country's standards.
To increase gas appliance safety, it is necessary to install a gas escape detector near the machine. **It is obligatory to place in room an easily accessible and easily visible powder fire extinguisher of least 12-kilograms.**
The installing company must carry out the machine connection to the gas source. Leading for the gas connection is placed on the back side of the left frame of the machine. The dimensions of this connection are mentioned in the machine parameter table (see chapter „3.4. Ironing machine with roller 35 cm“, „3.5. Ironing machine with roller 50 cm“, „3.6. Ironing machine with front/rear delivery“ - machines with gas heating).

⚠ WARNING !
NEVER CHANGE YOURSELF THE USED PRESSURES, TYPE OF NOZZLE, DISTANCE BETWEEN NOZZLE AND MIXING TUBE OR THE TYPE OF GAS . IT COULD CREATE SERIOUS DAMAGES. THE MANUFACTURER DECLINES ALL RESPONSIBILITY IN SUCH CASES.

For ensuring these correct pressures, install an outer pressure reduction valve near each machine, which adapts the pressure in the pipe to an operating pressure. This machine is not provided with this valve.
Install a manual mechanically blocked gas valve on an easily accessible place, so that the guiding length from the valve to the machine connecting is less than 2 m.
Install a pressure gauge between the pressure reduction valve and the manual valve to verify the used gas.
The conduit between the manual valve and the machine must be rigid with sufficient gas flow needed for each machine and must always be provided with leak proof sealing material which is resistant against used gases.

⚠ WARNING !
TO ENSURE GAS EXHAUST AIR OUT, VERIFY THE TURNING DIRECTION OF THE VENTILATOR. DO NOT START THE MACHINE IF THE SUPPLIED GAS OR USED PRESSURE DOES NOT COMPLY WITH THE TECHNICAL DATA ON THE MACHINE LABEL.
IT IS NECESSARY TO VERIFY AIR-TIGHTNESS ON ALREADY EXECUTED JOINTS.



Tab.4.7.A Instruction - Ironers - Gas - Nozzles

TAB. 2 - IRONERS - NOZZLES - SETTING-UP - EXCL. EU

IRONERS D (cm) - L (mm) ------>						35-1400					35-1600					35-2000					50-1600					50-2000					50-2500					50-3200				
.	-	J	M	N	P	-	-	-	R	S	-	-	-	R	S	-	-	-	R	S	-	-	-	R	S	-	-	-	R	S	-	-	-	R	S	-	-	-	R	S
Parameters	Century of destination _(state)_	Century code	Category	Gas	Inlet pressure _(mbar)_	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)	Nr. of nozzles	SET "d" (mm x 100)	"x" (mm)	(m3/hour)	(kg/hour)
Countries excl. EU			-																																				
			-																																				
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Notices:
N2 - (TAB. 1) - for info only, do not use
- - (TAB. 1) - In case of ambiguity, the bold lines for certain country are preferential
- - (TAB. 2) - The nozzle and label for gas conversion are not the part of the machine supply package for countries excl. EU

TAB. 3 - IRONERS - NOZZLES CODES

"d" (mm x 100)	Nozzle code

TAB. 4 - IRONERS - PRIMARY AIR ADJUSTMENT

Data are shown in attachment: code 525185

1. Injector (nozzle)
2. Gas valve
3. Inlet screw joint 3/4"
4. Primary air filter
5. Cover
6. Clamp
7. Mixing tube

523589

Tab.4.7.B Instruction - Ironers - Gas - Nozzles

4.8. CONVERSION TO ANOTHER GAS

⚠ WARNING !
GAS INSTALLATIONS AND THEIR POSSIBLE REPAIRS MUST BE CARRIED OUT BY AUTHORISED COMPANY. ALL USED INSTALLATION MATERIAL / E.G. REDUCTION VALVE, MANUAL VALVE../ AND THE EXECUTED GAS INSTALLATION MUST CORRESPOND TO THE VALID REGULATIONS IN THE COUNTRY WHERE THE MACHINE OPERATES.
IT IS FORBIDDEN TO CHANGE THE GAS MENTIONED ON THE SERIAL PLATE OF THE MACHINE. ANY OTHER GAS CLASSIFICATIONS, TYPES, GAS PRESSURE OR DIFFERENT GAS COMBINATIONS WHICH ARE NOT MENTIONED IN CHAPTER 4.7., (TAB.4.7A., TAB.4.7.B.) AND ARE SPECIFIED IN ATTACHMENT 525185 ARE NOT ALLOWED AND THE MANUFACTURER REFUSES ALL THE RESPONSIBILITY IN SUCH CASES.

In the case of a change in the type of gas and its working pressure within the category of the machine (tab.4.7.A.), it is necessary to change the nozzle („d“) and re-adjust the „primary air“ („x“).
The diagram displaying these parameters is part of tab.4.7.B., and attachment 525185.
After reconstruction to another type of gas within the category of the machine it is necessary to replace the serial plate „Adjusted for“ above the threading of the input of gas into the machine (rear lower part of the left stand).

4.9. MACHINE PREPARATION TO OPERATION

1. Before starting the machine, check whether machine installation (supply of media, evacuation of burnt gas, machine layout, sufficiently ventilated rooms etc.) was carried out according to this installation manual and in accordance with the rules specific for the respective country.
   Before you put the ironer into operation for the first time, remove the protective paper wrapping from the cylinder ironing surface, degrease it and wipe of until it is dry. Use technical gasoline to degrease the cold roller.

⚠ WARNING !
WHEN WORKING WITH FLAMMABLE PRODUCT, DO NOT USE OPEN FLAME, VENTILATE, DO NOT SMOKE AND DO NOT EAT.

2. Mount the insertion trough with protection covers and discharge trough, foot pedal and control panel.
   - The insertion and discharge through can be tilted and secured by screws trapped in frame holes.
   - The protection covers are placed in the frame.
3. The roller always turns in the correct direction, which is done by the frequency invertor.
   For version with pedal: Adjust the turning on of the insertion belt.
   For coin meter version: Set time(s) for coins and minimal time.

⚠ WARNING !
WHEN PUTTING GAS HEATING INTO OPERATION FOR THE FIRST TIME, WATCH THE WHOLE CYCLE TROUGH FRAME'S OPEN COVER (DOOR) SO AS TO BE SURE OF CORRECT FUNCTION OF ALL CONTROL AND REGULATION PARTS OF GAS INSTALLATION.

5. MAINTENANCE AND ADJUSTMENTS

5.1. SAFETY INSTRUCTIONS FOR MAINTENANCE

⚠ WARNING !
ONLY WELL-TRAINED PERSON CAN EXECUTE MACHINE MAINTENANCE.
BEFORE ANY MANIPULATION WITH THE MACHINE'S MECHANISM, MAKE SURE:

⚠ WARNING !
KEEP INSTRUCTIONS MENTIONED BELLOW IN CHAPTER 5. MAINTENANCE AND ADJUSTMENT.

1. **the main machine switch is switched off**
2. **the section switch of electric distributor in laundry is off and mechanically blocked**
3. **some of the components are not in motion due to delayed action**
4. **the machine is completely cooled-down**
5. **there is a sign hung on the machine or electrical box: "DEVICE UNDER REPAIR!" and all other operators or workers are informed about it.**

FOR MACHINES WITH STEAM/GAS HEATING

- the manual gas/steam supply valve is blocked

By following the mentioned directives, very good operation is achieved, the risk of failures is decreased and the machine's durability is extended.

⚠ WARNING !
IT IS NECESSARY THAT USERS DO NOT CARRY OUT ANY MANIPULATION NOT MENTIONED IN MAINTENANCE PROCESSES, BECAUSE IT IS ONLY IN THE COMPETENCE OF AUTHORIZED TECHNICAL SERVICE.

⚠ WARNING !
MINIMALLY TWICE A YEAR IT IS NECESSARY TO CLEAN THE MACHINE PROPERLY AND CLEAR ALL THE TEXTILE DUST AND DIRT. DANGER OF THEIR COMBUSTION!

CLEANING THE MACHINE

1. **Cleaning the electric components (contactors) placed in the panel of devices, cleaning the frequency inverter(s)**
2. **Cleaning all openings for air suction into the machine from the room**
3. **Cleaning the space inside the machine (after removal: upper front covers, upper rear covers, lifting off the filter covers, removal of rear panels, removal of filter sieves), cleaning the filter tub.**
4. **cleaning the ventilator wheel - removal of ventilator motor is necessary**
5. **Cleaning the trough of burner – it is necessary for machines with gas heating**

5.2. ROLLER

To get a high quality of ironing, the ironing roller must be kept clean and glossy which can be achieved by regular treatment of the ironing roller once a month (according to chapter „5.2. Roller“). When the quality of ironing worsens, remove the washing powder and freshening agents deposits from the ironing roller as follows:

CLEANING THE ROLLER

1. Stop the ironer and disconnect it from power, i.e. the main switch must be switched off (switchboard is free from voltage)

⚠ WARNING !
MAKE SURE THAT NO ONE TURNS THE MACHINE ON DURING CLEANING

2. After lifting up the rear upper covers (fig.5.4.A, pos.4.1), remove rear panels (fig.5.4.A, pos.4) and lift off the filter cover (fig.5.4.A, pos.4.2).
3. Lift up the tightening roller of ironing belts to upper technological position (fig.5.4.A, pos.5).
4. Release the ironing belts (fig.5.4.C) and leave them loosely placed on the machine.
5. Cover ironing belts with old cloth to protect them against contamination.

After these steps it is possible to begin the cleaning. Use the very fine abrasive paper (grain size No. 300) to remove washing powder deposits and calcium. Apply the abrasion paper in the direction of the laundry movement.

⚠ WARNING !
WHEN CLEANING, TURN THE ROLLER MANUALLY BY MEANS OF CRANK. AFTER FINISHING NEVER FORGET TO HITCH UP CRANK OF THE GEAR AND TO PUT IT BACK TO ITS POSITIONS!

The deposits can also be removed by a thin solution of oxalic acid or warm acetic acid.

⚠ WARNING !
NEVER FORGET TO RINSE THE SPACE, WHICH WAS CLEANED BY THE SOFT SOLUTION OF ACID WITH WATER, TO AVOID CORROSION.
WHEN WORKING WITH ACID, USE PERSONAL PROTECTIVE TOOLS (GLOVES, GLASSES).

5.3. UNSTICKER

CHECK OF UNSTICKER FIG. 5.3.A + FIG. 5.4.A

Regularly 1 x in two weeks check the state of unstickers (fig. 5.3.A - pos. 2), which are located under the feeding belts on the machine face side. If the unsticker is polluted with sediments (detergents, paraffin, wax, dust etc.), it is necessary to remove the sediments.

For visual check of unsticker or for non-dismantling maintenance at ironer with front/rear delivery, it is necessary to move the complete unsticker from operating position **A** to service position **B** (fig.5.3.A).

1. Switch off the machine main switch, wait until the machine cools down.
2. Loosen the bolt of unsticker holders (1) in both stands.
3. Dismount arresting bolt (3) in both stands.
4. Loosen the lower bolt M6 in unsticker holder (7) in both stands.
5. Dismount the upper bolt M6 in unsticker holder (7) in both stands.
6. Turn over the unsticker holder (7) to upper position and concurrently lift up slightly the complete unsticker. Using one bolt M6 secure the unsticker holder (7) in upper service position. (Applicable for both stands).

Do not use sharp articles for cleaning. Check the thrust to ironing roller. If it is low, there can occur local clearance between the unsticker edge and surface of ironing roller. Consequently, the linen might be stuck. If it is too high, the unticker edge is worn too much. Generally true is that the thrust should be adjusted as low as possible, without occurence of local clearance between an edge and roller surface. Thrust is adjusted by changing position of arresting bolt (3) (identically in both stands).

If the unsticker is worn too much, replace it.

REPLACEMENT OF UNSTICKER FIG. 5.3.A + FIG.5.4.A

1. Switch off the machine main switch, wait until the machine cools down.
2. Dismount the bolt of unstickers holders (1) in both stands.
3. Dismount arresting bolt (3) in both stands.
4. Remove complete unsticker from the machine. (For ironer with front/rear delivery with folder it is necessary first to dismount an upper pipe with guidance stainless boards – it is shown in (fig.5.14.A), which is a part of inclined output conveyor).
5. Mount the repaired or new complete unsticker onto the machine in reverse order.

5.4. IRONING BELTS

TIGHTENING THE IRONING BELTS (FIG.5.4.B)

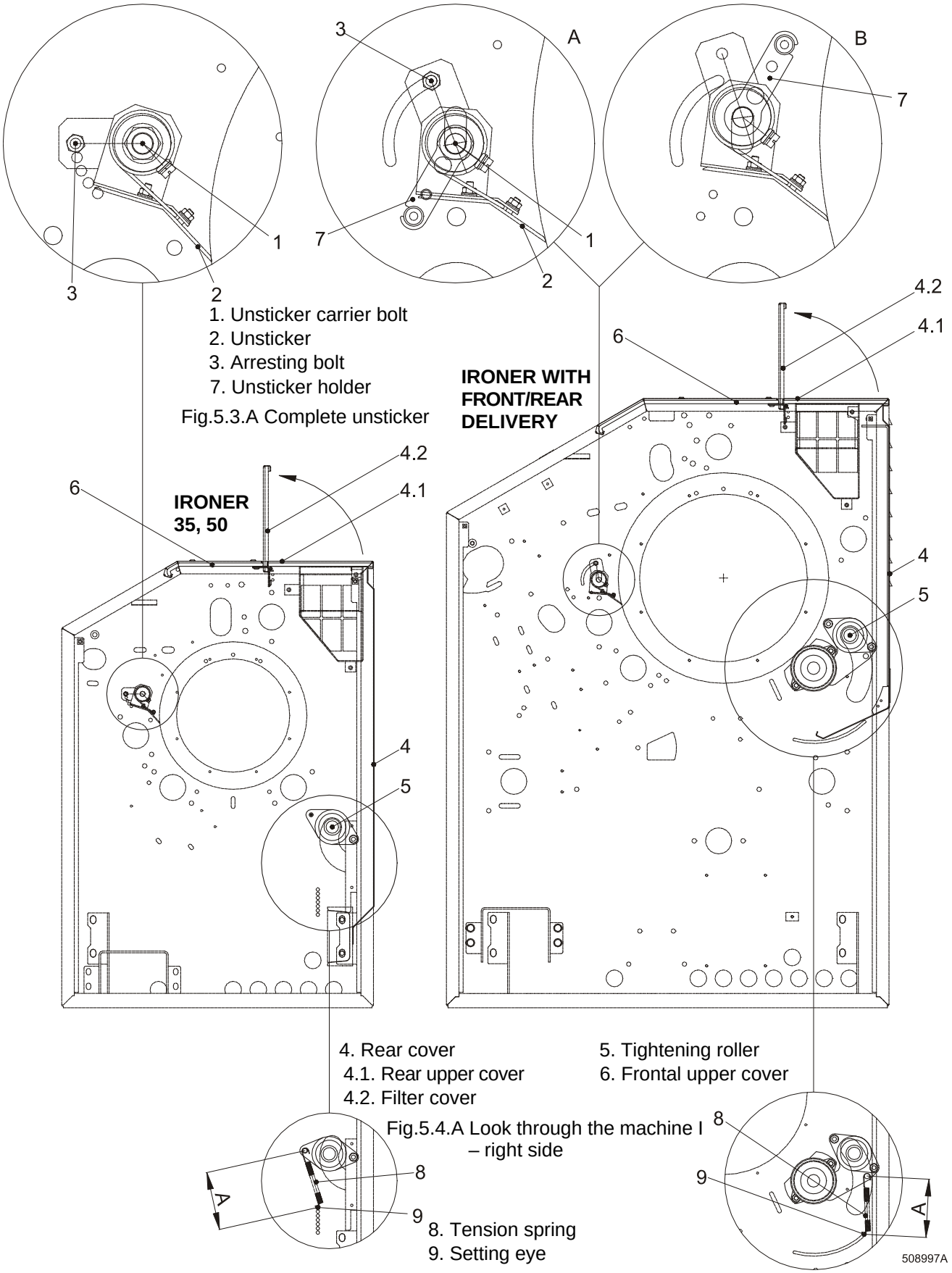
Ironing belts are tightened automatically gravitationally with support of tension spring (pos.8) (one on each side at ironers 35, 50, two on each side at ironer with front/rear delivery. For system of ironing belts tightening - check of spring pretension dimension (pos.8) is executed only 1x/month of operation. Pretension is determined by spacing A=140-5 mm and it is executed by change of position of lower spring eye (pos.9).

REPLACEMENT OF IRONING BELTS (FIG.5.4.C)

Ironing belts can be replaced individually only if they have been damaged (torn). Otherwise it is always recommended to replace all of the belts at once. In the case of their contamination by washing detergents and dust, wash ironing belts in usual washing detergents. Thus their durability can be increased and you get improved quality of ironing. Their durability is two years of operation at 40 hours/week following all instructions stated in this manual.

1. Turn off the machine with the main switch, make sure and wait until the machine cools down.
2. Remove the rear panel (see chapter „5.2. Cleaning of roller“).
3. Insert the crank and turn the ironing belt (2) so that the belt connectors are accessible.
4. Lift up tightening roller of ironing belts to upper technological position (fig.5.4.A, pos.5).
5. Disconnect an old belt and connect the new belt (1) to the old one using braces.
6. Turn the crank until the new belt is completely rolled onto the rollers.
7. Disconnect the old belt and connect the new belt.
8. Repeat the same for each belts.
9. Put the rear cover back on.

⚠ WARNING !
NEVER FORGET TO CHECK, IF THE MANUAL HANDLE IS OUT OFF MESHING.



1. Unsticker carrier bolt
2. Unsticker
3. Arresting bolt
7. Unsticker holder

Fig.5.3.A Complete unsticker

4. Rear cover
4.1. Rear upper cover
4.2. Filter cover
5. Tightening roller
6. Frontal upper cover

Fig.5.4.A Look through the machine I – right side

8. Tension spring
9. Setting eye

Obr.5.4.B System of ironing belts tightening

1. New ironing belt
2. Old ironing belt
3. Ironing belt tensioning roller

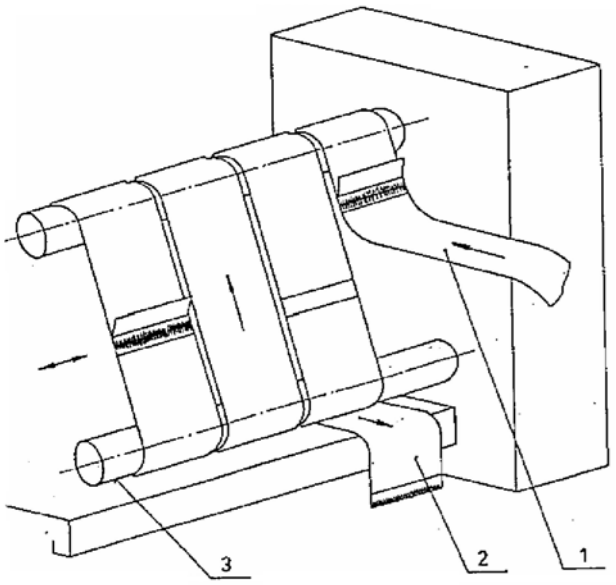


Fig. 5.4.C. Replacement and tightening of belts

5.5. FEEDING BELTS / FEEDING TABLE

ADJUSTMENT OF FEEDING BELTS (FIG. 5.5.B)

– Feeding belts (pos.1) must be tightened by minimal possible pretension, which will not cause their stoppage when feeding the linen
– Feeding belts are pre-tensioned by move of roller of feeding table (pos. 3), which is caused by move of tightening bolt (pos.2)
– Measure „A“ is set in manufacturing plant, it is different for individual machine versions, further adjustment is not needy
– Before tightening the feeding belts, it is necessary to loose the bearing nuts (pos.4), nut of belt cover at ironer with front/rear delivery (pos.5), fastening bolts of input trough at ironers 35, 50 and at ironer with front/rear delivery as well
– Tightening the belts will be executed by the tightening bolt (pos.2)
– Input trough at ironers 35, 50 will be set in such a way, so that distance between the edge of input trough and belts on the roller (pos.3) would be 3 – 5 mm in the lowest spot
– All nuts will be tightened back again

ADJUSTMENT OF FEEDING BELTS SWITCH (FIG. 5.5.B)

It is delivered together with pedal and system of electromagnetic clutch of the feeding table roller as special accessories

– Required moment of microswitch switching (pos.6) by the leg pedal (pos.7) and then stoppage of feeding belts movement (pos.1) is reached by setting the stop bolt (pos.8)

FINGER GUARD

Finger guard serves to stop machine in case of incorrect feeding of laundry or possibly if accidental pulling of hand into the gap between the guard and table happen. Back stroke is started with button from the control panel keyboard.

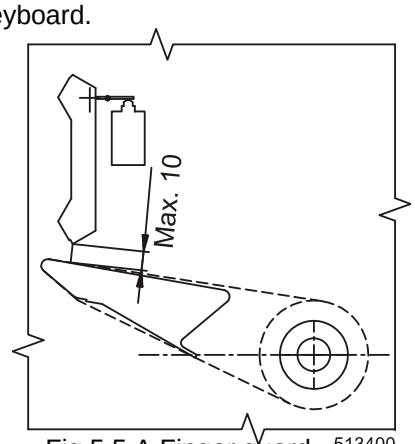


Fig.5.5.A Finger guard

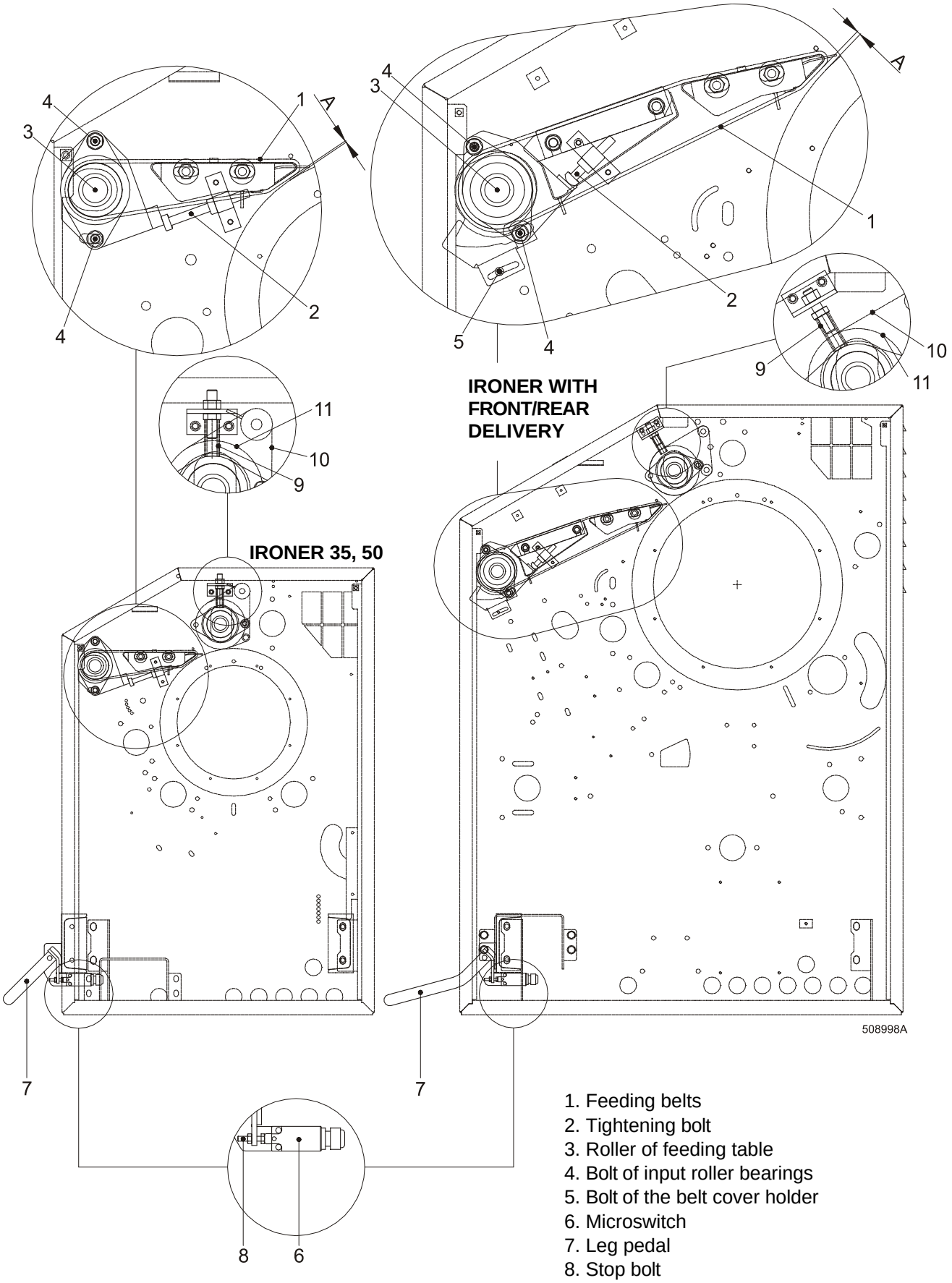


Fig. 5.5.B. Look through the machine II – right side

5.6. PRESSURE ROLLER PADDING

⚠ WARNING !
THE PRESSING ROLL PADDING WILL SETTLE DOWN AFTER SAME TIME OF OPERATION, THEREFORE IT IS NECESSARY TO CHECK IT AFTER EVERY 100 HRS. OF RUNNING, AND IF NECESSARY TIGHTEN IT.

REPLACING THE PRESSURE ROLLER PADDING

1. Turn off the machine with the main switch, secure it and wait until the machine cools down.
2. Remove upper frontal cover (fig.5.4.A, pos.6), loosen or disassemble pressure springs (fig.5.5.B, pos.9).
3. Undo or cut the ribbons (fig.5.5.B, poz.10).
4. Remove the bolt with washer which fasten the pad (fig.5.5.B, pos.11) to the pressure roller on both sides.
5. Unwind the padding.
6. Bolt on the new padding on one side of the pressing roll.

⚠ WARNING !
MORE YELLOW FELT SIDE (NOMEX) HAS TO BE IN TOUCH WITH IRONING ROLL AFTER INSTALLATION.

7. Wind the padding on to the pressing roll, at the same time tension the padding and force the winded threads together.
8. Screw the padding on the end of the pressing roll and cut of the rest.
9. Put the ribbons back on (fig. 5.5.B, pos.10).
10. Pretension the springs of the pressing roll (fig. 5.5.B, pos.9) so that thrust is the same on both ends of the pressing roll. Test the thrust by ironing some linen.
11. Install the upper frontal cover back.

5.7. RIBBONS

The ribbons serve to remove the linen from the pressing roller. Missing ribbons should be replaced.
Check the ribbons regularly once a week.

1. Wait until the machine cools down and turn off the machine by the main switch and secure it.
2. Dismantle the upper frontal cover (fig.5.4.A, pos.6).
3. Put the new ribbons back (fig.5.5.B, poz.10).
4. Put the upper frontal cover back.

5.8. BEARING HOUSES

LUBRICATION (FIG. 5.11.A)

All marked bearing houses „ “ must be lubricated twice a year using the lubricating gun.
It is recommended to use grease containing lithium for operation in high temperatures, drop point min. 190°C.
Manufacturer recommends grease UNIREX S2 (NLGI 2 KE 2S-50), fy ESSO.
Other bearings which are not marked need not be maintained.

5.9. CHAIN GEARS

TENSION OF CHAINS (FIG.5.11.A)

Keep chains of roller drive (pos.1, or possibly pos. 1.2) and chains of feeding belts drive (pos.4) in the right machine stand slightly tight. Sliding tension pulley (pos. 2), which is pre-tensioned by tightening bolt (pos. 3) serves for tensioning. After loosening the bolts of sliding pulley (pos.2), tension the chain (pos.1, or possibly pos. 1.2) towards **F1**. At the same time with the tightening of the chain (pos.1, or possibly pos.1.2) tighten the drive chain in the feeding belts (pos.4) in the direction **F2** by pushing the bolt (pos.12.1). After sufficient tension of both chains (pos.1, or pos. 1.2) and (pos.4), tighten the bolts of tension pulley (pos.2).

FINAL TENSION OF MAIN CHAIN AFTER TENSIONING THE BELTS OF INCLINED OUTPUT CONVEYER (VALID FOR IRONER WITH FRONT/REAR DELIVERY WITH FOLDER), (FIG.5.11.A).

After tensioning the belts of inclined output conveyer (pos.13) (direction **Fa**) (see chapter 5.14), position of conveyer chain wheel is changed and loosening of the main chain occurs (pos.1, or pos. 1.2). This loosening is necessary to compensate by secondary tension of chain using the conversion pulley (pos.11) tensioned in direction **F3** by pushing bolt (pos. 12.2). After final tensioning of the main chain (pos.1, or pos. 1.2), the part of chain must remain between the pulleys (pos. 13 and pos. 11) in roughly horizontal position. Unless this is done by tensioning the pulley (pos.11), it is necessary to execute complete adjustment using the tension pulley (pos.2) after setting up the correct position of pulley (pos.11).

Note.: Position of conversion pulley (pos.11) at ironers with front/rear delivery without folder does not change. Grease the chains and teeth of chain wheels approx. 1x week. (Manufacturer recommends high load lubricating liquid with content of Molybdenum).

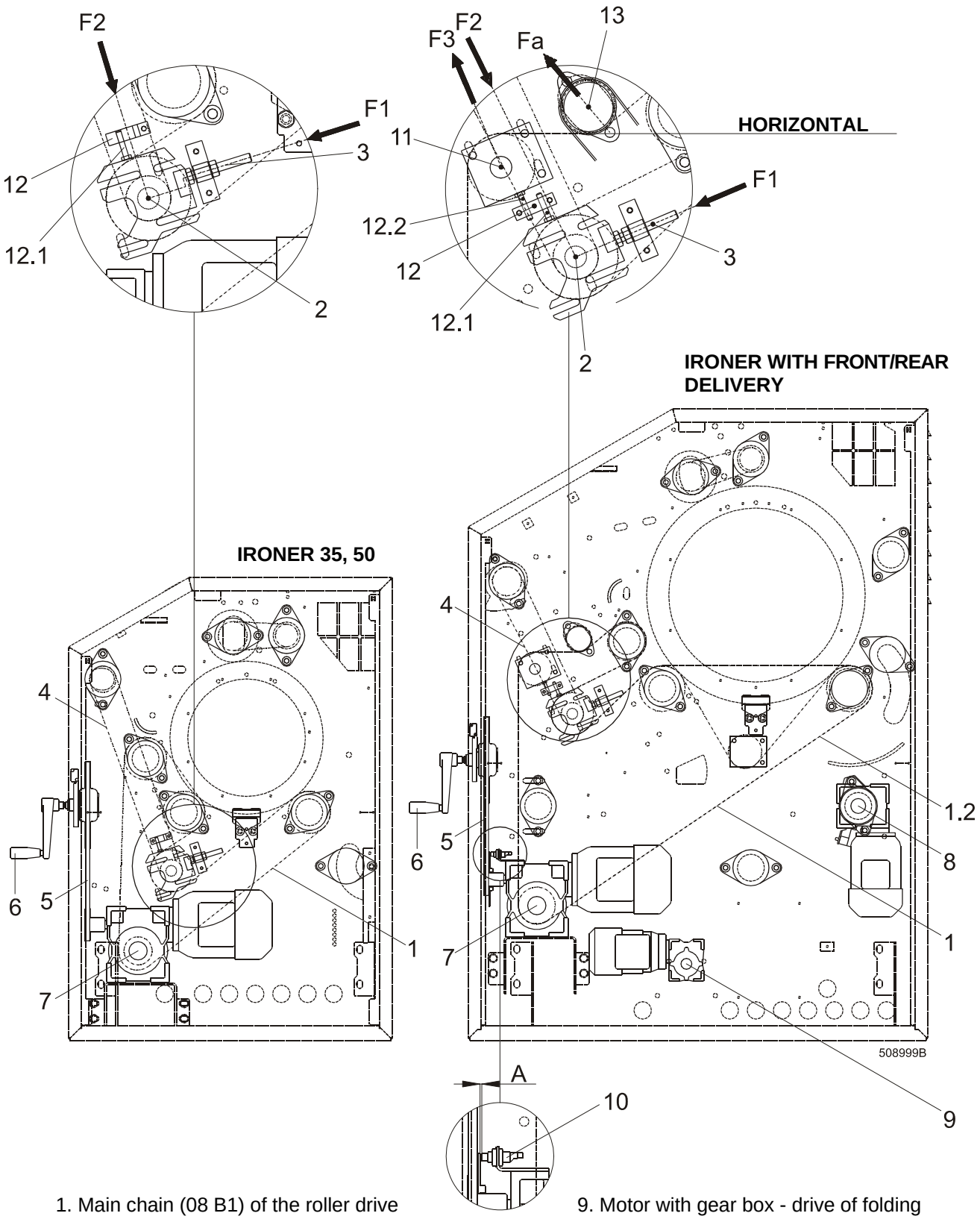
5.10. MANUAL DRIVE GEAR

TENSION (FIG.5.11.A)

Chain of manual drive (pos.5) is pretensioned by sliding pulley, which is a part of manual handle system (pos.6). The chain is tensioned by minimal power which ensures transfer of move from the main motor (pos.7) to the crank belt pulley.

5.11. GEAR BOXES (FIG.5.11.A)

Gear boxes of the motor do not require any maintenance for the whole lifetime.



1. Main chain (08 B1) of the roller drive
1.2 Main chain for version „E“
2. Sliding tension pulley
3. Tightening bolt
4. Chain of feeding belts drive (06 B1)
5. Chain of manual drive
6. Manual emergency handle
7. Main motor with gear box
8. Motor with gear box - drive of reverse table (only for ironer with front/rear delivery)
9. Motor with gear box - drive of folding balancer, (only for ironer with front/rear delivery with folder)
10. Inductive sensor of turns
11. Conversion tension pulley
12. Bracket of pushing bolts
12.1. Pushing bolt of pulley 2
12.2. Pushing bolt of pulley 11
13. Output conveyer

Fig. 5.11.A. Look through the machine III - right side

5.12. FILTERS

⚠ WARNING !
BEFORE YOU START CLEANING THE FILTERS, WAIT UNTIL THE MACHINE IS COOLED DOWN AND SWITCH OFF THE MACHINE MAIN SWITH.

CLEANING EXHAUST FILTERS

Check regularly once a day filter contamination caused by textile dust. It is necessary to remove dust from the filter to avoid decreased efficiency of ventilation. The filter sieve is accessible from the side or rear part of the machine, after the filter covers have been lifted off (fig.5.4.A, pos.4.2). After you lift off the cover, hold the filter sieve handle and take it out. Put it back after cleaning and insert it into the filter tub up to its end. Then close the filter cover.

⚠ WARNING !
IF THE FILTER COVER IS NOT POSSIBLE TO OPEN, THEN THE FILTER SIEVE IS PROBABLY NOT IN ITS EXTREME POSITION. THE MACHINE MUST NOT BE OPERATED, BECAUSE EFFECTIVENESS OF SUCTION WOULD DECREASE INTOLERABLY.

CLEANING THE FILTER OF PRIMAR AIR BURNER

Check regularly once a week filter contamination caused by textile dust. It is necessary to remove dust from the filter to avoid decreased efficiency of burning. The filter (tab.4.7.B., pos.4 and attachment 525185) is placed in the left stand on gas piping. You can remove the filter after loosening the clamp (6) and opening the top cover (5). Clean the filter screen. If the filter is badly contaminated, it is better to install a new filter.

⚠ WARNING !
NEVER CHANGE THE USED TYPE OF NOZZLE, DISTANCE BETWEEN NOZZLE AND MIXING TUBE. IT COULD CREATE SERIOUS DAMAGES. THE MANUFACTURER DECLINES ALL RESPONSIBILITY IN SUCH CASES.

CLEANING THE STEAM FILTER

It is necessary to clean the steam filter screen once every 1-3 months depending on the amount of dirt present, on machines with steam heating. The interval between cleanings depends on the amount of solid particles in the steam.

1. Filter body
2. Filter screen
3. Gasket
4. Plug

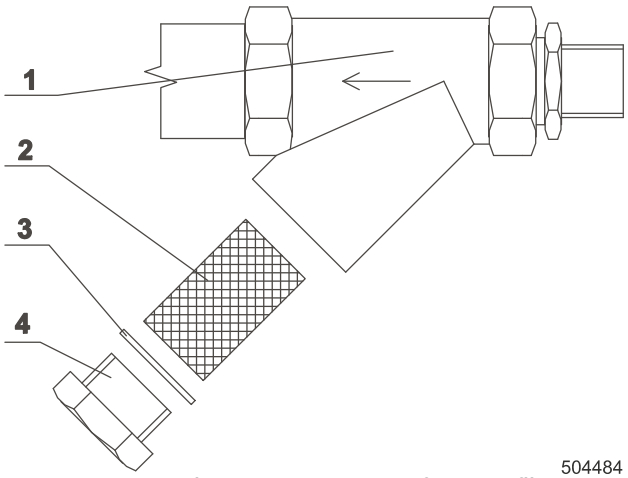


Fig. 5.12.A Screen of steam filter

⚠ WARNING !
1. STOP THE STEAM SUPPLY AND WAIT UNTIL THE FILTER COOLS DOWN!

2. Unscrew the filter plug (fig.5.12.A, pos.4) and remove the filter screen (2).
3. Clean the filter screen under water (compressed air can also be used).
4. Insert the filter screen (2) into the filter body (1) and tighten the plug (4).

If in the operation of the machine with steam heating, the machine is not disconnected for a longer period than one month, the components of the steam route do not require any maintenance or inspection with the exception of the steam filter (see above).
Otherwise, in the case of re-commissioning of machine, it is necessary to inspect the components of the steam route (see chapter 4.6.).

5.13. INDUCTIVE SENSOR OF TURNS

Fig. 5.11.A - pos.10, only the ironer with front/rear delivery with folder.
Value A (the sensor face distance from the sensor disc) = 2÷3 mm.

5.14. OUTPUT SYSTEM

FINAL TENSION OF BELTS OF OUTPUT CONVEYER

(APPLICABLE FOR IRONER WITH FRONT/REAR DELIVERY WITH FOLDER, FIG. 5.14.A).

Check of belts tension (pos. 1.1) of inclined output conveyer (pos.1) may be execute only when the machine is switched off and the input trough is uncovered. Check of belt tension must be executed 1x per two weeks and it is executed minimally on two belts located approx. in the first and second third of the machine width. The belt tight correctly is the one, when by action of the force approx. 10N in the spot **Fb** , there occurs flexibility approx. 10 mm.
Tensioning is executed by slight lift of roller (pos. 1.2) using tightening bolts (pos. 1.3) after loosening anchor bolts (pos. 1.9) located on inner sides of stands. For feeding width 250 and 320 it is executed also in the middle of output conveyer using the tightening bolt (pos. 1.4) after loosening the anchor bolt (pos. 1.8) of the central tightening bearing (pos. 1.5).
After tensioning the belts and after the check, tighten the anchor bolts (pos. 1.9 and pos. 1.8). Tight the anchor bolt (pos. 1.8) slightly to enable light pendulous motion of steady (pos. 1.5) in case of small „excentric running" of roller (pos. 1.2).

OPTICAL SENSOR (POS. 1.6)

(APPLICABLE FOR IRONER WITH FRONT/REAR DELIVERY WITH FOLDER, FIG.5.14.A).

Maintenance of optical sensor consists in cleaning (wiping) the dust and sediments in the spot of the light source, (pos. A). It must be executed minimally 1x per two weeks or more often, according to working conditions and type of linen.
Note: When ironing dark, let us say black linen the linen may not be folded properly.

ANTISTATIC ELECTRODE (POS. 1.7)

(APPLICABLE FOR IRONER WITH FRONT/REAR DELIVERY WITH FOLDER, FIG.5.14.A).

Maintenance of antistatic electrode consists in cleaning (vacuum cleaning) the dust and sediments in the spot of points (pos. B). It must be executed minimally 1x per two weeks or more often, according to working conditions and type of linen.

REVERSE CONVEYER – FOLDING TABLE (POS. 4, 5, 6)

(APPLICABLE FOR IRONER WITH FRONT/REAR DELIVERY, FIG.5.14.A).

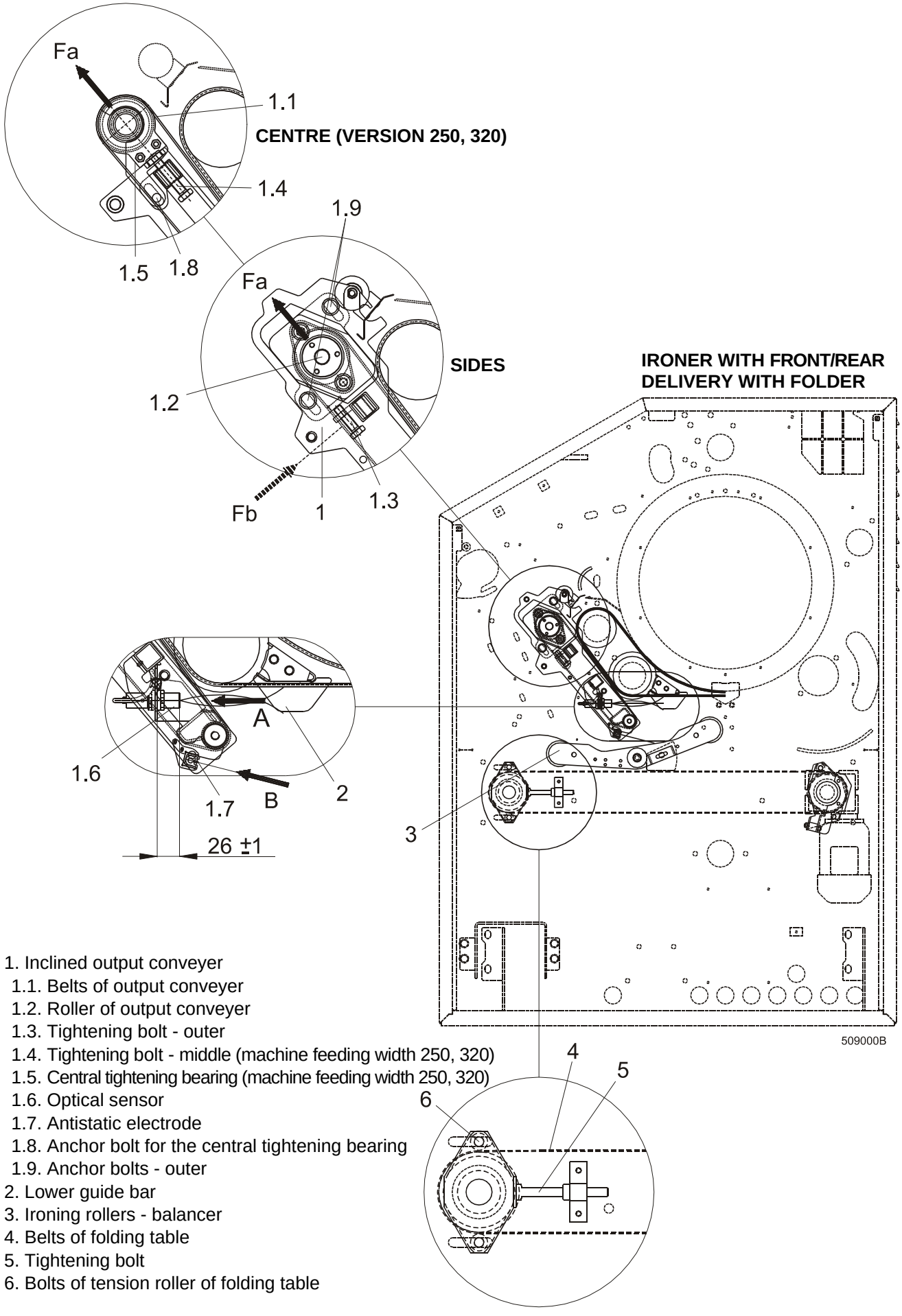
Tensioning of belts of folding table (pos.4) is executed by the balanced motion of bearing bodies of folding table front roller, after loosening the bolts (pos.6). Tension the belts of folding table (pos. 4) by tightening bolts (pos.5) in both stands of machine, and tighten the bolts (pos.6).
For replacement of belts of folding table (pos.4) loosen the bolts (pos.6), loosen the tightening bolts (pos. 5) sufficiently and disconnect the belts (pos.4) by pulling the nylon connecting element out of metal connectors. Replace the belts by new ones and connect them. Tighten the belts adequately using the tightening bolts (pos.5) equally on both machine sides, tighten the bolts (pos.6).

EXCESSIVE TENSION OF BELTS CAUSES OVERLOAD OF REVERSE TABLE DRIVE. SLIGHT SAG OF THE BELTS LOWER PART DOES NOT OBSTRUCT THE FUNCTION. BUT THE BELTS MUST ALWAYS REMAIN BETWEEN THE GUIDES WHICH ARE LOCATED AT THE ROLLERS OF THE REVERSE CONVEYER.

LOWER IRONING ROLLER – BALANCER (POS. 3)

(APPLICABLE FOR IRONER WITH FRONT/REAR DELIVERY WITH FOLDER, FIG.5.14.A).

Lower ironing rollers are driven by motor with gear-box (fig.5.11.A – pos.9). The whole kinematic system is adjusted at the manufacturer and does not require any regular maintenance. Just in case of possible replacement of terminal microswitches controlled by pilot cam, they must be located on the microswitch board strictly in the same position as before replacement.



1. Inclined output conveyer
   1.1. Belts of output conveyer
   1.2. Roller of output conveyer
   1.3. Tightening bolt - outer
   1.4. Tightening bolt - middle (machine feeding width 250, 320)
   1.5. Central tightening bearing (machine feeding width 250, 320)
   1.6. Optical sensor
   1.7. Antistatic electrode
   1.8. Anchor bolt for the central tightening bearing
   1.9. Anchor bolts - outer
2. Lower guide bar
3. Ironing rollers - balancer
4. Belts of folding table
5. Tightening bolt
6. Bolts of tension roller of folding table

Fig. 5.14.A Look through the machine IV – right side

5.15. ELECTRIC INSTALLATION AND REPAIR

- **Any repairs of electric installation must be done by a qualified serviceman.**
- **To find out any failures, use electric installation documentation which is a part of the operating instructions.**
- **After any repair take care to connect all connections in compliance with previous conditions. It is important to re-connect all protection conductors provided they were disconnected during repair.**
- **After any exchange of electric devices, make sure that they have correct identification according to a functional scheme.**
- **After any repair test all of the safety elements and their setting (terminal switches, safety thermostat, etc.).**
- **The ironer must be always earthed. During the installation, pay attention to a correct earthing to avoid the occurrence of antistatic charges which may adversely affect a proper function of the ironer and ironing quality.**
- **Check condition and tightening of screw clamps of the main switch and contactors, at version with electric heating also fuse disconnectors and heating bodies. Perform this check after the machine installation and then every 1000 operation hours or after six months.**

5.16. FUSES

FUSES VALUES

MODEL E								
Identification	**Intended for:**	**Machine roller (cm)**						
		Insertion width (mm)						
		35	**35**	**35**	**50**	**50**	**50**	**50**
		1400	**1600**	**2000**	**1600**	**2000**	**2500**	**3200**
FU1	Ventilator 3ph.	6 A	6 A	6 A	6 A	6 A	6 A	6 A
FU2	Control circuits	2 A	2 A	2 A	2 A	2 A	2 A	2 A
FU3	Heating elements 380V	32 A	40 A	50 A	63 A	63 A	50 A	63 A
	Heating elements 220V	32 A	50 A	63 A	50 A	63 A	40 A	50 A
FU4, FU5	Transformer primer	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A
FU6, FU9 FU11, FU12	Frequency control	10 A	10 A	10 A	10 A	10 A	10 A	10 A
FU7	Clutch	1 A	1 A	1 A	1 A	1 A	1 A	1 A
FU8	Heating elements 380V	-	-	-	-	-	50 A	63 A
	Heating elements 220V	25 A	25 A	32 A	50 A	63 A	40 A	50 A
FU13, FU14	Heating elements 230V	-	-	-	-	-	40 A	50 A

Tab. 5.16.A Machines with electrical heating

MODEL S								
Identification	**Intended for:**	**Machine roller (cm)**						
		Insertion width (mm)						
		35	**35**	**35**	**50**	**50**	**50**	**50**
		1400	**1600**	**2000**	**1600**	**2000**	**2500**	**3200**
FU1	Ventilator	6 A	6 A	6 A	6 A	6 A	6 A	6 A
FU2	Control circuits	2 A	2 A	2 A	2 A	2 A	2 A	2 A
FU4, FU5	Transformer primer	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A	2,5 A
FU6, FU9 FU11, FU12	Frequency control	10 A	10 A	10 A	10 A	10 A	10 A	10 A
FU7	Clutch	1 A	1 A	1 A	1 A	1 A	1 A	1 A

Tab. 5.16.B Machines with steam heating

MODEL G								
Identification	**Intended for:**	**Machine roller (cm)**						
		Insertion width (mm)						
		35	**35**	**35**	**50**	**50**	**50**	**50**
		1400	**1600**	**2000**	**1600**	**2000**	**2500**	**3200**
FU1	Ventilator	6 A	6 A	6 A	6 A	6 A	6 A	6 A
FU2	Control circuits	2 A	2 A	2 A	2 A	2 A	2 A	2 A
FU4, FU5	Transformer primer	4 A	4 A	4 A	4 A	4 A	4 A	4 A
FU6,FU9 FU11, FU12	Frequency control	10 A	10 A	10 A	10 A	10 A	10 A	10 A
FU7	Clutch	1 A	1 A	1 A	1 A	1 A	1 A	1 A
FU10	Burner ignition unite	4 A	4 A	4 A	4 A	4 A	4 A	4 A

Tab. 5.16.C Machines with gas heating

5.17. SAFETY THERMOSTAT

The safety thermostat (pos.2) together with programmer switch (pos.1) is on the thermostat board in the left stand of the machine. The safety thermostat is set by the manufacturer to the maximum roller temperature of 210°C.

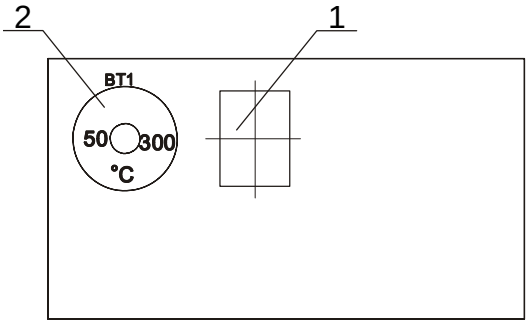


Fig. 5.17.A. Thermostat board

5.18. FREQUENCY INVERTER

Parameters of inverter(s) are pre-set by manufacturer of the machine.

5.19. GAS INSTALLATION MAINTENANCE

CHECKING THE GAS INSTALLATION FOR LEAKS

The test for finding out about gas leaks is done in the following manner:

1. Coat all the gas pipe connections with a water solution that has a high concentration of soap mixed in.
2. Turn on the machine. If bubbles appear, it means that gas is escaping.
3. A qualified serviceman will remove all of the discovered leaks.

⚠ WARNING !
WHEN FIRST BRINGING THE GAS HEATING INTO OPERATION, WATCH THE WHOLE CYCLE THROUGH THE OPEN DOOR IN THE STAND, SO YOU CAN BE SURE OF THE PROPER FUNCTION OF ALL CONTROLLING AND REGULATING UNITS OF THE GAS REGULATION SYSTEM.

5.20. UNDERPRESSURE SWITCH - GAS HEATING

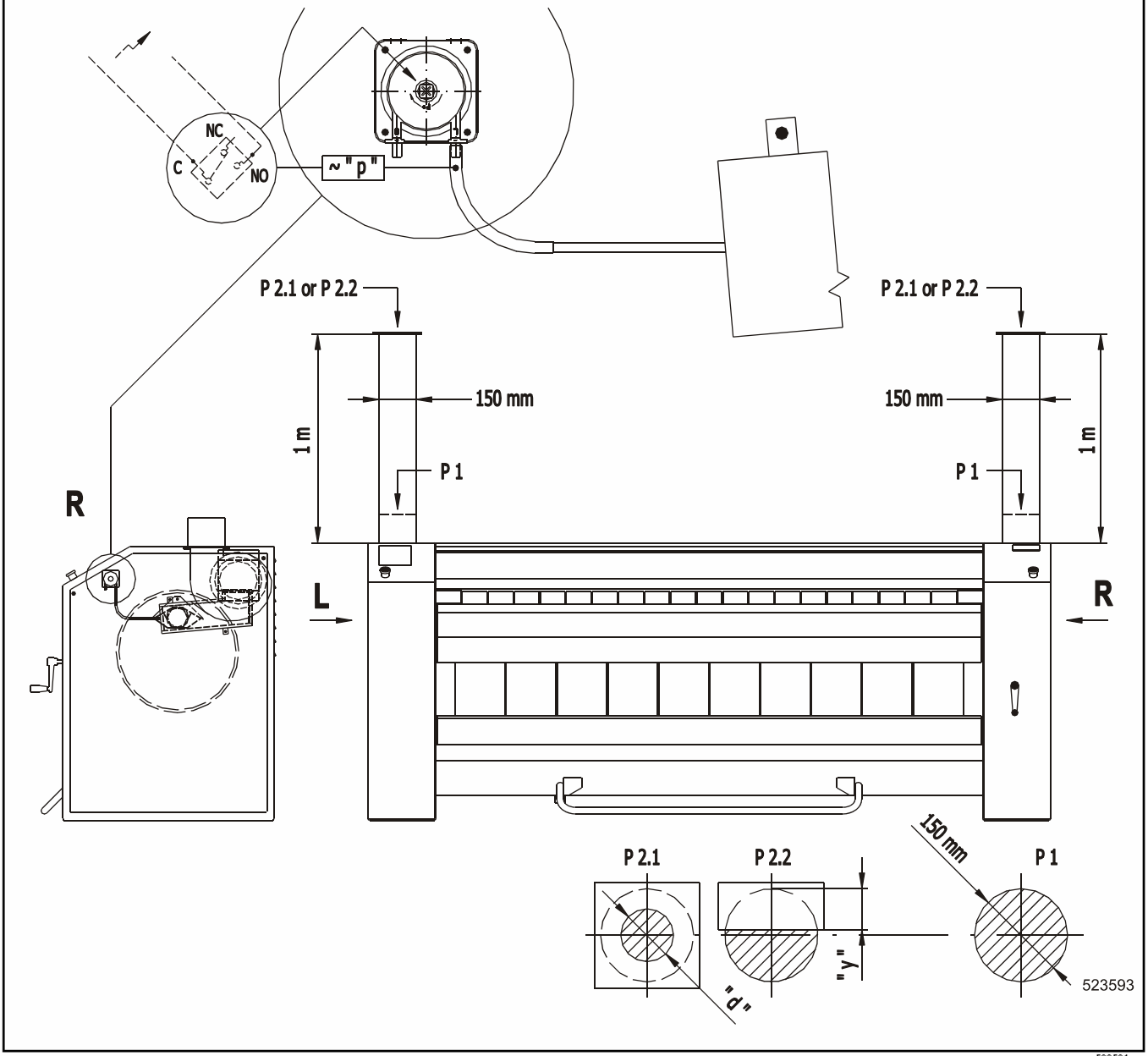
CHECKING (ADJUSTMENT) OF UNDERPRESSURE MACHINE SWITCHES WITH GAS HEATING

If it is necessary (after damage or failure) to equip the machine with a new under-pressure switch (one or two), it is necessary to adjust them in accordance with the data contained in tab.5.20.
In the case that there was no failure or damage to the underpressure switches, it is not necessary to adjust them.

TAB. 1 - IRONERS - UNDERPRESSURE SWITCH - SETTING-UP

IRONERS D (cm) - L (mm) ------>		35-1400				35-1600				35-2000				50-1600				50-2000				50-2500				50-3200			
-	-	switch OFF (NC)				switch OFF (NC)				switch OFF (NC)				switch OFF (NC)				switch OFF (NC)				switch OFF (NC)				switch OFF (NC)			
Parameters	Side of machine	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)	"d" (mm)	"y" (mm)	"p" (mm H2O)	"p" (mbar)	"p" (Pa)
	"R"	76,5	77,0	-4,0 <	-0,392 <	-39,20 <	76,5	77,0	-4,0 <	-0,392 <	-39,20 <	76,5	77,0	-3,2 <	-0,314 <	-31,36 <	76,5	77,0	-4,0 <	-0,392 <	-39,20 <	76,5	77,0	-8,0 <	-0,784 <	-78,40 <	76,5	77,0	-6,2 <	-0,608 <	-60,80 <	85,0	66,0	-15,8 <	-1,548 <	-154,84 <
	"L"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76,5	77,0	-7,2 <	-0,706 <	-70,6 <	85,0	66,0	-8,5 <	-0,833 <	-83,30 <

TAB. 2 - IRONERS - UNDERPRESSURE SWITCH - DESIGN



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Tab.5.20 Instruction - Ironers - Gas - Underpressure switch

5.21. LAUNDRY ROOM EARTH LEAKAGE TRIP

TESTING THE EARTH LEAKAGE TRIP

If the earth leakage trip is installed before the power cable supply, it is necessary to regularly check its function. The earth leakage trip is a very sensitive device which contributes to the improved safety of the machine and it requires a regular inspection.

⚠ WARNING !
A QUALIFIED SERVICEMAN SHALL CHECK THE EARTH LEAKAGE TRIP AND ITS FUNCTIONING AT LEAST ONCE IN THREE MONTHS. THE TEST IS CARRIED OUT UNDER VOLTAGE BY PRESSING A TEST PUSH BUTTON ON THE EARTH LEAKAGE TRIP. THE EARTH LEAKAGE TRIP MUST SWITCH OFF!

5.22. PUTTING ROLLER OUT OF SERVICE

Provided that the ironer will not be used for a longer time (longer than 5 working shifts), it is necessary to do treatment of the roller. Apply „CLEANCOAT“ wax recommended by manufacturer on the roller when it is still hot (80°C). Use a cloth for cleaning only (i.e.old cloth or „WAX CLOTH“), fold it and put a wax into its fold. Then insert it several times into the ironer.

⚠ WARNING !
DON'T FORGET TO CLEAN THE ROLLER (REMOVE A WAX) BEFORE THE FIRST USING AFTER THE MACHINE HAS BEEN PUT OUT SERVICE (INSERT A PIECE OF LINEN WHICH IS MEANT FOR CLEANING ONLY, SEVERAL TIMES).

6. TROUBLE SHOOTING

6.1. SOLVING OF COMMON PROBLEMS

Problem	Cause / state	Problem solving
After switching ON the main switch, the display doesn't light up.	• Failure in power supply • Some of emergency stops is pushed in (the buzzer sounds in this case) • The fuse in distributor or on the control system is blown	• Check outer supply • Deactivate (pull out) both emergency stops • Change the fuse; if it blows again, then the failure is in electrical installation
The machine doesn't react when pressing the buttons on keyboard	• No button functions • Safety bar or crank for manual rotation is pushed in (the button „Start" doesn't work)	• Find out, if connector „S1" of keyboard is connected properly • Loosen the bar and crank, check, if micro switch of safety bar or crank is not jammed
Insufficient ironing	If the linen exiting the machine is wet, check the roller temperature. If it is correct then it can be caused by: • high linen moisture • the thickness of the ironed linen • the ironing speed is too high	• the linen is insufficiently spun; in this case, pre dry the linen in a dryer to the correct residual moisture (max. 50%) • decrease the ironing speed until the right ironing quality is reached
Linen gets yellow	• Linen was not properly rinsed	• Drop phenolphtaein on the linen - if it gets violet, pH is too high which is the evidence of detergents in the linen - linen was not properly rinsed. Litmus paper could be used as well to check pH. Follow the instruction enclosed to the litmus paper - pH should be lower than 8.

6.2. FAILURES OF MACHINES WITH GAS HEATING

DESCRIPTION AND ELIMINATION OF THE GAS INSTALLATION FAILURES

1. Design for supply 50 Hz: if you do not manage to ignite the burner, the system will give an error message see „Programming manual", error 8.
2. Design for supply 60 Hz: if you do not manage to ignite the burner, the system will not give any error message. It is necessary to eliminate the cause first – see „Programming manual", error 8, and then reset the burner ignition unit. You can do it either by switching the machine off and switching on again (centralstop or main switch), or by double pressing the button on ignition unit - to do this you must screw off the machine left stand cover (ignition unit is above electric distributor).
3. If you smell gas or combustion gases escaping from the machine, close up the gas supply manual valve and switch off the machine.

- **CALL MAINTENANCE TO CHECK FOR GAS LEAKS OF THE MACHINE GAS INSTALLATION, CHECK THE VENTILATOR FUNCTION AND THE EXHAUST DUCT CORRECT FUNCTION.**

Another problems and their troubleshooting - see „Programming manual".

7. LISTS AND DIAGRAMS FOR MAINTENANCE

7.1. LIST OF ORIGINAL NON-INTERCHANGEABLE PARTS

VALID FOR VERSION WITH GAS HEATING

⚠ WARNING !
REPLACEMENT OF THESE PARTS IS A SERIOUS INTERVENTION TO THE MACHINE. THIS IS THE REASON WHY THE REPLACEMENT CAN BE DONE ONLY BY THE MANUFACTURER OR BY AUTHORISED SERVICING CO. IN CASE OF BREAKING THESE INSTRUCTIONS, THE MANUFACTURER REFUSES ALL THE RESPONSIBILITY AND WARRANTY CAN BE LOST.

1. Burner
2. Mixing venturi tube - setting (tab.4.7.B) and attachment 525185)
3. Nozzle - mounting (tab.4.7.A., tab.4.7.B) and attachment 525185)
4. Gas valve
5. Ignition automatic system
6. Ignition electrode
7. Underpressure switch - (tab.5.20), manufacturer's setting
8. Ventilator

7.2. LIST OF RECOMMENDED SPARE PARTS

Find more detailed information and order codes in the spare parts catalogue or at your dealer.

For maintenance:

372 021 160 100	Wax cloth 160 x 100 cm
502 348	CLEANCOAT wax - 8kgs

7.3. RECORD OF CHECK AND CLEANING

It means cleaning of air filters, steam filters (S) and filter of primary air (G). Check of unstickers, state of belts, ribbons, pressure roller padding and tension of chain gears. Greasing of bearings.

Date	Cleaning	Date	Cleaning	Date	Maintenance	Date	Checking

8. PUTTING THE MACHINE OUT OF SERVICE

8.1. MACHINE DISCONECTION

1. If the machine is still to be used, do a treatment of the roller according to chapter „5.22. Putting roller out of service“.
2. Turn off the outer power supply to the machine.
3. Turn off the switch in the rear part of the machine.

⚠ WARNING !
4. WAIT UNTIL THE MACHINE AND CONNECTIONS COOL DOWN !

5. Disconnect all power, steam and gas inlets.

8.2. MACHINE DISPOSAL

⚠ WARNING!
TAKE ALL NECESSARY ACTION AND PRECAUTIONS WHEN DOING DISASSEMBLY OF THE MACHINE TO AVOID INJURIES BY GLASS OR SHARP METAL EDGES.

8.2.1. POSSIBILITY OF THE MACHINE DISPOSAL BY THE SPECIALIZED COMPANY

Information concerning the WEEE-directive (Waste Electrical and Electronic Equipment, for European Union member states only):

– For the production of the machine that you have purchased, natural resources are being reclaimed and used. The machine can contain substances which are dangerous for health and environment.
– When you dispose of your machine, to avoid spreading of these substances in our environment and to reduce the pressure on our natural resources, we encourage you to use the collection, reuse and recycle system of your region or country. These systems reuse or recycle most of the components.
– The symbol „crossed out bin on wheels ( )“ invites you to make use of these systems.
– If you wish more information concerning the systems for collection, reuse or recycling of disposed machines, you can take contact with the competent administration of your region or country (waste management).
– You can also take contact with us for more information concerning the environmental performances of our products.
– Please, consider that the WEEE directive is generally only valid for household machines. In some countries professional machines are added, in others not. Therefore the symbol ( ) may not be present.
– Info for dealers: Due to the diversity of the national legislations, manufacturer can not take all the measures to be in accordance with all national legislations of each member state. We expect that each dealer who imports our appliances into a member state (and puts it on the market) takes the necessary steps to be in rule with the national legislation (as the directive requires).

8.2.2. POSSIBILITY OF THE MACHINE DISPOSAL BY OWN POTENTIAL

It is necessary to sort out the parts for metal, non-metal, glass, plastics etc, and bring them to recycle places. The sorted out materials has to be classified in waste groups. These groups can be found on www.euwas.org

Offer the sorted waste to the company which is competent for further treatment.

NOTES:

VIKTIG !

MASKINTYPE:	
PROGRAMMERER: - **OPL** - **Myntapparatversjonen**	
INSTALLERINGSDAG:	
INSTALLERINGEN UTFØRT AV:	
SERIENUMMER:	

ELEKTRISK SPESIFIKASJON:
SPENNING .....V..... FASE ..... Hz

MERKNAD:

VED ALLE HENVENDELSER TIL DIN FORHANDLER VEDR. MASKIN- ELLER RESERVEDELERSIKKERHET MÅ DETTE DOKUMENTET VÆRE KORREKT UTFYLT. OPPBEVAR ANVISNINGEN FOR SENERE REFERANSER.

FORHANDLER: